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COVER SHEET

Proposed Action: Renovation of existing facilities, and construction and operation of new facilities at the former U.S. Naval Communication Detachment, Cheltenham, Prince George's County, Maryland. Site would become a satellite training and requalification facility for the Department of the Treasury's Federal Law Enforcement Training Center.

Type of Statement: **Environmental Assessment – DRAFT**

Lead Agency: United States Department of the Treasury, Federal Law Enforcement Training Center

Cooperating Agencies:

Federal:
- U.S. Army Corps of Engineers
- U.S. Navy
- Department of the Interior, Fish and Wildlife Service

State of Maryland:
- Department of the Environment
- Department of Natural Resources

Maryland-National Capital Park and Planning Commission

Prince George's County:
- Department of Environmental Resources
- Department of Planning
- Department of Parks and Recreation

For further information:

Ms. Susan Shaw, NEPA Coordinator/P. Mgr.
U.S. Department of the Treasury
Federal Law Enforcement Training Center
Trailers 726
Glynco, GA 31524
912-261-4557 (Commercial)

Mr. Robert Smith, Operations Chief
U.S. Department of the Treasury
Federal Law Enforcement Training Center
9000 Skid pad
Cheltenham, MD 20623-5000
301-868-5830 (Commercial)

Abstract: The U.S. Department of the Treasury, Federal Law Enforcement Training Center (FLETC), has acquired the former U.S. Naval Communication Detachment at Cheltenham, MD, located approximately 15 miles southeast of Washington, DC. FLETC proposes to renovate portions of this facility and also construct new facilities to provide a Washington, DC-area training and requalification site for the wide variety of federal, state and local law enforcement agencies to which FLETC provides training services. These client agencies include numerous federal agencies, (including the U.S. Capitol Police), and the District of Columbia Metropolitan Police Department. Modification and upgrading of the currently inactive facility would include construction of: an approximate 150,000-square foot, totally-enclosed, environmentally-safe, firearms training range; an emergency response/pursuit vehicle training range; a non-emergency vehicle operation/urban response requalification range; skid pad; and other classroom, simulator and support facilities. Former U.S. Navy property adjacent to the FLETC facility is owned by the Department of Energy (124.27 acres to the west) and the Prince George's County Parks and Recreation Department (191.83 acres to the south and east).

The FLETC has chosen as the Preferred Alternative to develop the facilities noted above within the 232-acre Cheltenham site. Other alternatives considered include the No Build option, and locating the facility at Cheltenham but with differing arrangements for structures and facilities. The Preferred Alternative and its arrangement would moderately impact wetlands located at the site. Additionally, traffic impacts would occur, but these would not be considered significant. Mitigation of unavoidable impacts is proposed in the assessment document. Other impacts would be considered moderate or insignificant.

Glossary of Acronyms and Abbreviations

Ac	Acres
ACM	Asbestos Containing Materials
ACOE	United States Army Corps of Engineers
Amsl	Above Mean Sea Level
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CIP	Prince George's County Capitol Improvement Program
COMAR	Code of Maryland Regulations
CTP	Maryland Consolidated Transportation Program
dBA	Decibels
DC	District of Columbia
DMURC	Driver's Multi-Use Range Complex
DoD	Department of Defense
E&S	Erosion & Sedimentation Plan
EA	Environmental Assessment
EBS	Environmental Baseline Study
EIS	Environmental Impact Statement
EJ	Environmental Justice
EMS	Emergency Medical Service
FEMA	Federal Emergency Management Agency
FIDS	Forest Interior Dwelling Bird Species
FLETC	Federal Law Enforcement Training Center
FTF	Firearms Training Facility
FWS	United States Fish and Wildlife Service
gpm	Gallons Per Minute
Ha	Hectare
HEPA	High Efficiency Particulate Filter
ID	Identification
Km	Kilometer
LDN	Day-Night Average Sound Level
LOS	Level of Service
LQG	Large Quantity Generator
MACEJ	Maryland Advisory Council on Environmental Justice
MD	State of Maryland
MDE	Maryland Department of the Environment
MHT	Maryland Historical Trust
MMBTUH	Millions of British Thermal Units per Hour
MNCPPC	Maryland-National Capital Park and Planning Commission
MNR	Maryland Department of Natural Resources
MTA	Maryland Transit Authority
NAAQS	National Ambient Air Quality Standards
NCDC	Naval Communications Detachment – Cheltenham
NCPC	National Capital Planning Commission

NCU	Naval Communications Unit
NEPA	National Environmental Policy Act
NEVO	Non-Emergency Vehicle Operation
NOI	Notice of Intent
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
^{o}F	Fahrenheit
PCB	Polychlorinated Biphenyls
PEPCO	Potomac Electric & Power Company
RCRA	Resource Conservation and Recovery Act
SCS	Soil Conservation Service
TCLP	Toxicity Characteristics Leaching Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
v/c	Volume-to-Capacity Ratio
VOC	Volatile Organic Compounds
WMATA	Washington Metropolitan Area Transit Authority
WSSC	Washington Suburban Sanitary Commission

1. PURPOSE AND NEED FOR THE ACTION

1.1 FLETC AND ITS MISSION

The Federal Law Enforcement Training Center (FLETC), a bureau of the United States Department of the Treasury, is the nation's leading organization for multi-agency training of federal law enforcement personnel. Its mission is to provide high quality, cost effective training to the agents and law enforcement personnel of the federal government; up to 74 agencies participate in training offered by the FLETC. These agencies include numerous federal agencies, the U.S. Capitol Police, and the District of Columbia Metropolitan Police Department. Additionally, state and local law enforcement agencies are also invited to train at the FLETC facilities. Training services are offered currently by the FLETC at its Glynco, Georgia and Artesia, New Mexico facilities, and include classroom presentations, firearms training, and vehicle operations.

The large number of Washington, DC area law enforcement organizations that utilize the FLETC's services currently must send personnel to Glynco, GA for initial and subsequent requalification training. This represents a substantial expenditure of time and financial resources for these agencies. Locating a satellite training and requalification facility in the metropolitan DC area would dramatically reduce the impact on time and financial resources, while at the same time, allow the Glynco facility to maintain its current training offerings and provide more initial or basic training programs. Consequently, the FLETC was tasked by Congress to identify and develop a training and requalification center to meet the needs of the various Washington, DC user agencies.

1.2 THE PROPOSED ACTION

The FLETC has identified the former Naval Communications Detachment Cheltenham, MD (NCDC) site as the potential site for an additional training and requalification facility to be located within the metropolitan Washington, DC area. The NCDC site is situated approximately 15 miles southeast of Washington, DC, in Prince George's County (Figures 1 and 2). It is located between Maryland Route 301 to the east and Route 5 to the west, approximately 3 miles south of Andrews Air Force Base.

The Proposed Action addressed in this Environmental Assessment (EA) includes the renovation/demolition/restoration of existing buildings located at the former NCDC and construction of new structures to provide a satellite training and requalification facility. It is proposed that the satellite facility would begin training client personnel in 2003. The proposed new construction includes:

- Approximately 150,000 sq. ft. totally enclosed, environmentally-safe, multiple firearms training range (Firearms Training Facility or FTF)
- Emergency response/pursuit vehicle training range (Driver's Multi-Use Range Complex or DMURC)
- Non-emergency vehicle operation (NEVO) range/urban response requalification range
- Skid pad

- Recycling center
- Hazardous waste storage facilities
- External security building with security fence and perimeter road

Immediate renovation of the following buildings would also occur as part of this program:

- Buildings 1, 1A, and 1B would become a multi-activity center including administrative offices, two classrooms, a "use of force judgement" simulator range, emergency medical station, locker rooms, secure storage, and other usages.
- Building 31 would become a administration and training facility for the U.S. Capitol Police.
- Building 50 would be used for the partner organizations' office space and classrooms.
- All onsite utilities would be upgraded to current code requirements.

Demolition of up to 25 building and structures would occur immediately; other buildings and structures would be closed and reserved for renovation in the future. An additional 7 buildings would be used initially and demolished in the future.

Vegetation within the 232-acre site would be manipulated through clearing and grubbing, bush hogging and burning, tree thinning and improvement cuts, and the creation of fire control lines. These actions would be performed for facilities construction, wildlife habitat improvement, aesthetics, fuel reduction, hazard control, and insect and disease reduction.

1.3 PURPOSE AND NEED FOR THE ACTION

As noted in Section 1.1 above, the FLETC is tasked with providing law enforcement training to a wide variety of federal and other law enforcement agencies. The FLETC's facilities currently providing these training services are located in Glynco, Georgia and Artesia, New Mexico. Many of the client organizations utilizing the FLETC's services are located in the metropolitan Washington, DC area. Maintenance of perishable firearms and vehicle operations skills for these agencies has been complicated by severe shortage of adequate nearby training sites. The cost, travel, and time requirements associated with the use of the Glynco and Artesia facilities also contribute to the difficulty in maintaining the tactical readiness of law enforcement personnel.

In order to locate a suitable satellite training and requalification site, Congress directed the FLETC to conduct a site assessment survey of potential training sites in the metropolitan Washington, DC area. All Government property on the surplus property inventory was considered available for the new facility. User clients were also surveyed for job skill retention and training needs to determine what kinds of facilities are needed and how many potential users exist that might be accommodated. As part of this site assessment survey, nine sites were evaluated for location, available acreage, attitudes of the surrounding communities, and other factors. The FLETC identified the former NCDC site in Cheltenham, MD as the only site satisfying the anticipated needs of the facility in terms of convenience of location and accessibility, adequate size, potential for new construction, and availability of existing, easily renovated and reusable buildings. The U.S. Navy disestablished the facility in December 1998; no further activities have occurred on the site since that date.

1.4 DECISION TO BE MADE FROM THIS ENVIRONMENTAL ASSESSMENT

In keeping with the intent of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ), and Department of the Treasury Directive 75-02, "Department of the Treasury Environmental Quality Program," evaluation of the Proposed Action will determine whether it would result in potentially significant impacts on the human environment. If no potentially significant impacts are identified from the Proposed Action, a Finding of No Significant Impact (FONSI) can be issued. If significant impacts are likely, however, even after mitigation measures are incorporated into the design, construction, and operations of the facility, then a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) is required, followed by the completion of the EIS itself.

No other EA/EIS exists for the Cheltenham site or the Proposed Action. This assessment is not tiered or linked to any other assessment document.

The FLETC is acting as the Lead Agency in this matter. Numerous federal, Maryland, and Prince George's County agencies with regulatory authority and responsibilities appropriate for this Proposed Action have been notified and asked to participate in the NEPA assessment process. Additionally, this project included solicitation of input and comments from local residents, community leaders, and other interested parties (Appendix A). The input of agencies and residents has been considered in the FLETC's decisions concerning the significance of the impacts discussed herein, and the mitigation of those impacts, where suggested.

1.5 POTENTIALLY SIGNIFICANT ISSUES

Scoping covers the range and detail of issues covered in this EA document. Scoping was conducted as part of the NEPA process to ensure that issues of concern were identified early in the process. Further, scoping enabled the FLETC to concentrate on "real problems", rather than spend time and effort on addressing and studying issues that are of little or no concern. The following activities were conducted to define and refine the scope of the EA:

- Interviewed FLETC personnel at the Cheltenham and Glynco sites to obtain information on specific training needs, projected facility design and operational requirements, alternative sites, and anticipated schedules.

- Evaluated existing data related to current traffic patterns, air emissions, waste generation/ management/disposal, wastewater treatment, and noise issues.

- Evaluated existing site conditions and natural resources within the Cheltenham project area.

- Interviewed site personnel knowledgeable of historic site activities, site utilities, and community attitudes.

- Interviewed local, state, and federal regulatory agencies to obtain information pertaining to appropriate permits and regulatory requirements for operation of the facility.

- Conducted a public meeting with local residents, community leaders, elected officials, and user groups and other interested individuals to obtain their views on specific concerns in order to facilitate a process that ensures that appropriate issues are defined and analyzed while simultaneously devoting less attention and time to issues which have been shown to be of little or no concern.

Project scoping resulted in the identification of the following key issues, all of which are addressed in greater detail within the body of this EA document:

- Construction activities may result in encroachment into project area nontidal streams and wetlands. Through its design program, the FLETC intends to minimize or avoid impacts to wetlands and waterways at the site; therefore, it is anticipated that any encroachment into these areas would be minor. The goal of Maryland's nontidal wetlands and waterways program is to manage nontidal wetlands and to provide essential resource protection by authorizing only necessary and unavoidable impacts. Accordingly, activities, including filling and grading, excavation and dredging, and the removal of vegetation in nontidal wetlands and waterways are regulated and permitted under this program.

- Construction activities, start-up, and extended operation of training activities at the renovated FLETC site would generate various levels of noise, depending on the activity. In order to determine the magnitude of sounds that would be generated during training exercises and their relationships to existing local noise ordinances, a detailed acoustics study was conducted at the Glynco, GA site (reference conditions) and the proposed Cheltenham, MD site. Study findings and conclusions indicate that noise would not pose an adverse impact to residents in adjacent housing tracts. Mitigation measures would be employed to further minimize noise impacts beyond the FLETC property line.

- It is anticipated that operation of the FLETC facility would result in an increase in traffic on area roads and at several key intersections within a one-mile radius of the site. Consequently, a transportation study was performed to identify existing levels of service at a total of seven area intersections. The study evaluated projected cumulative changes at those intersections from a combination of normal growth of the surrounding area and start-up of the FLETC facility. It was found that traffic impacts from a daily projected total of 353 staff and students using the FLETC facility would moderately affect the level of service at two of the seven intersections. Concerns raised by area residents included traffic levels, noise, and public safety issues. Again, potential traffic mitigation measures are discussed in this EA document.

- Construction activities are expected to result in the removal and alteration of forested areas within the project area. These areas are primarily composed of pitch pine, red oak, yellow poplar, sweetgum, red maple, and sycamore. It has been reported (Maryland Department of Natural Resources or DNR) that the forested areas on the site contain Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird Species (FIDS) have been declining in Maryland. Conservation of this habitat is strongly encouraged by the DNR. This EA discusses certain mitigation guidelines that reportedly would help minimize the project's impacts on FIDS and other native forest plants and wildlife.

- It is projected that the facility would operate under an EPA identification number as a large quantity generator of hazardous waste. The majority of waste material would be generated as the result of the firearms training activities (i.e., lead waste). Spent lead material would be completely contained within the indoor range. Once generated however, it would require management and off-site disposal, preferably via metal recycling. The FLETC would develop an inspection system, training program, and track all waste materials from generation to its final disposition. Therefore, through compliance with its hazardous waste management program, impacts are not expected to be adverse.

1.6 REQUIRED PERMITS/APPROVALS

One aspect of the development of this EA that helps focus the discussion of impacts and stimulates the involvement of regulatory agencies is the identification of potential environmental permits and approvals applicable to the Proposed Action. Summarized below are those permits and approvals and the agency under which authority is obtained. It should be noted that, under implementation of the Proposed Action Alternative, the FLETC has indicated that adverse impacts to environmental features would be minimized or avoided to the greatest extent possible:

- National Pollutant Discharge Elimination System (NPDES) Stormwater Permit; General Permits for Construction Activities/Facility Operations
    - Maryland Department of the Environment (MDE)

- Erosion/Sediment Control Plan Approval
    - MDE; Nonpoint Source Program
    - Prince George's County Soil Conservation District

- Stormwater Management Plan Approval
    - MDE; Nonpoint Source Program

- Nontidal Wetlands and Waterways Permit; Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal, or Nontidal Wetland in Maryland; Water Quality Certification
    - MDE; Water Management Administration
    - U.S. Army Corps of Engineers (ACOE)

- Permit to Construct/State Permit to Operate
    - MDE; Air Quality Program

- Large Quantity Generator of Hazardous Waste; EPA Identification Number
    - U.S. Environmental Protection Agency

1.7 OTHER CHAPTERS OF THIS ENVIRONMENTAL ASSESSMENT

The following chapters of this assessment are organized thusly:

TABLE 1
DOCUMENT SUMMARY

CHAPTER	TOPIC
2	Alternatives to the Proposed Action
3	Existing Environmental Conditions
4	Impacts Due to Alternatives and Mitigation
5	Unavoidable Adverse Impacts
6	Short/Long Term Impacts
7	Commitment of Resources
8	Cumulative Effects
9	Conclusions
Appendices	

Chapter 2 presents the various alternatives including the Proposed Action and at its completion, summarizes the alternatives to be considered further in the assessment. Chapter 3 describes the baseline environmental conditions potentially affected by the various alternatives remaining for evaluation. In Chapter 4 the impacts on each specific environmental condition or media for each alternative remaining are detailed, including any mitigation measures. Chapters 5 and 6 present the adverse impacts which cannot be avoided, and weigh the short and long term impacts, respectively. Chapter 7 discusses the expenditure of various energy, material, and financial resources required for the Proposed Action to proceed. Chapter 8 evaluates the summation of impacts from this and other projects in the vicinity that have an additive impact effect on environmental conditions. Findings and conclusions are presented in Chapter 9. The Appendices contain correspondence, contact listings, references, public meeting minutes, response to comments (in the Final EA), and technical reports prepared as part of the assessment process.

2. ALTERNATIVES CONSIDERED

The No Action Alternative discussed herein considers the continuation of training and requalification activities at the FLETC Glynco, GA location, as well as other training facilities within the metropolitan Washington, DC area. Federal *basic* training takes precedence over all other types of training that are currently offered at the Glynco facility. Requalification training is considered to be *advanced* training. Current Federal basic training workload is at an unprecedented level and therefore limits the FLETC from scheduling or accommodating all advanced training requests at the Glynco facility. Glynco currently provides 95% of basic training classes requested. Given the number of federal agencies currently utilizing this facility, this situation is projected to continue well into the foreseeable future. Historical scheduling of advanced or requalification training has been handled on a sporadic basis.

Alternative 2 is the Proposed Action or Preferred Alternative, addressing the Cheltenham, MD site. Alternatives 3 and 4 also utilize the Cheltenham location, but consider the impacts of revised site and facility arrangements. Alternative 5 is the consolidation of all of the unacceptable sites originally indicated on the government's surplus inventory listing and investigated by the FLETC. The findings and determination document, generated as a result of FLETC's investigation of all the potential sites and signed on November 2, 2000, is found in Appendix B. Environmental consequences of the alternatives are summarized in Section 2.6.

2.1 ALTERNATIVE 1 – NO ACTION

Training and requalification of federal law enforcement personnel from the numerous Washington, DC area agencies have been accomplished since 1975 at the FLETC's Glynco, GA facility and other training facilities in and around metropolitan Washington, DC. Glynco is the headquarters and main campus facility for the FLETC, and is located at the site of the former Glynco Naval Air Station near Brunswick, GA. The Glynco facility includes classrooms, residence halls, recreation areas, support buildings, and a dining hall capable of serving over 4000 meals daily. A 34-building practical exercise complex is also included. Indoor and semi-enclosed firearms training ranges, a driver training complex, and administrative buildings are also located at Glynco.

The FLETC offers several law enforcement programs of differing lengths on the basic and advanced levels. Federal, state, local, and foreign law enforcement personnel are trained at Glynco. Some training is specifically tailored to the user agency's needs. Up to 74 agencies utilize the training services offered by the FLETC. Over 16,000 students graduated from Glynco programs in the year 2000.

Should no new training facility be developed to serve the District of Columbia's local, state, and federal law enforcement agencies, their training and requalification needs would continue to go unmet at the Glynco, GA facility. Whenever and wherever possible, agencies would also utilize local training facilities in the Washington, DC area. The agencies have indicated, however, that they have experienced a severe shortage of specialized and adequate training facilities in the Washington area. This could potentially cause some agencies to fail to meet all requalification requirements or to expend unusually high levels of funds in order to accomplish requalification.

Federal *basic* training takes precedence over all other types of training that are currently offered at the Glynco facility. Requalification training is considered to be *advanced* training. Current Federal basic training workload is at an unprecedented level and is therefore precluding the FLETC from scheduling or accommodating advanced training courses at the Glynco facility. Given the number of federal agencies currently utilizing this facility, this situation is projected to continue well into the foreseeable future. Historical scheduling of advanced or requalification training has been handled on a sporadic basis.

2.2 ALTERNATIVE 2 – PROPOSED ACTION

The FLETC has identified the former 232-acre Naval Communication Detachment-Cheltenham, MD (NCDC) site to address an anticipated need to site an additional training and requalification facility within the immediate metropolitan Washington, DC area. The NCDC is situated approximately 15 miles southeast of Washington, DC, in Prince George's County (Figures 1 and 2). It is located between Maryland Route 301 to the east and Route 5 to the west, approximately 3 miles south of Andrews Air Force Base.

The Proposed Action addressed in this Environmental Assessment (EA) is the renovation/ demolition/restoration of existing buildings located at the former NCDC and construction of new structures to provide a satellite requalification training facility. Figure 3 illustrates the Alternative 2 arrangement of the Cheltenham site. The satellite facility would begin training client personnel in 2003. The proposed new construction includes:

- Approximately 150,000 sq. ft. totally enclosed, environmentally-safe, multiple firearms training range (Firearms Training Facility or FTF)
- Emergency response/pursuit vehicle training range approximately 1.5 miles in length (Driver's Multi-Use Range Complex or DMURC)
- Nonemergency vehicle operation (NEVO) range/urban response requalification range
- Skid pad
- Recycling center
- Hazardous waste storage facilities
- External security building with security fence and perimeter road
- Guardhouses at both entrances to the facility; a visitor and security building would be constructed at the northern entrance
- Four-bay vehicle maintenance garage
- Vehicle refueling station with underground gasoline storage tank

Immediate renovation of the following buildings would also occur as part of this program (Figure 3A):

- Buildings 1, 1A, and 1B would become a multi-activity center including administrative offices, two classrooms, a "use of force judgement" simulator range, emergency medical station, locker rooms, secure storage, and other usages
- Building 4 would become offices for the driving range instructors

- Building 13 would become offices for the firearms training instructors
- Building 31 would become a administration and training facility for the U.S. Capital Police
- Building 50 would be used for the partner organizations' office space and classrooms
- All onsite utilities would be upgraded to current code requirements

Demolition of up to 25 building and structures would occur immediately; other buildings and structures would be closed and reserved for renovation in the future. An additional 7 buildings would be used initially and demolished in the future.

Vegetation within the 232-acre site would be manipulated through clearing and grubbing, bush hogging and burning, tree thinning and improvement cuts, and creating fire control lines. These actions would be performed for wildlife habitat improvement, aesthetics, fuel reduction, hazard control, and insect and disease reduction.

It is anticipated that implementation of this alternative would not impact more than 5,000 ft^2 of palustrine emergent and forested wetlands within the project area. Adverse impacts of 5,000 ft^2 or more would require preparation of a joint MDE and ACOE permit (Nontidal Wetlands and Waterways Permit).

Alternative 2 is the Preferred Alternative.

2.3 ALTERNATIVE 3 – PROPOSED ACTION WITH MODIFIED DRIVER TRAINING RANGE CONFIGURATION

Alternative 3 also proposes to use the Cheltenham site for the new facility as described above, but with a revised DMURC layout that reduces the overall footprint of the range located south of Commo Road. This design modification would result in the complete avoidance of all impacts to wetlands located within the western and southwestern one-half of the property. Alternative 3 does not provide the length of driving range preferred by the FLETC to maximize the training effectiveness for the student law enforcement officers. Figure 4 illustrates this site arrangement.

2.4 ALTERNATIVE 4 - PROPOSED ACTION WITH RELOCATED DRIVER TRAINING RANGE

Alternative 4 also proposes to use the Cheltenham site for the new facility as described above, but with a DMURC arrangement that places the approximate 1.5 mile training range to the north of Commo Road. Figure 5 illustrates this site arrangement, including the location of the proposed FTF as it remains north of Commo Road.

2.5 ALTERNATIVE 5 – OTHER SITES IN THE NATIONAL CAPITAL REGION

The FLETC's approach to its investigation for placement of a training and requalification center in the metropolitan Washington, DC area was to evaluate federal properties on the General Services Administration's surplus property inventory within the National Capital Region. Evaluation, which included site inspections of a total of nine properties on this listing, led to the identification of the Cheltenham site, Alternative 2 above.

Table 2 summarizes the sites, other than Cheltenham, that were either on the Government's surplus property inventory or in the preliminary stages of being excessed, and therefore, potentially available to the FLETC. The acreage and other data concerning the particular sites are indicated, as is the FLETC's rationale for rejecting each site.

All of the Alternative 5 sites are unacceptable for development of the new satellite training and requalification facility for the reasons stated in the table. No further consideration, therefore, of these sites by the FLETC occurred.

2.6 SUMMARY OF ENVIRONMENTAL & OPERATIONAL CONSEQUENCES OF ALTERNATIVES

Under the No Action Alternative, the FLETC would be required to provide adequate training and requalification of law enforcement organizations from the Washington area at the Glynco, GA facility. Further, those agencies requiring advanced training (requalification) would be required to maintain their perishable shooting and vehicle operation skills in the Metropolitan area. The FLETC has reported that for several years, many of the law enforcement agencies have had extreme difficulty in locating and utilizing adequate training sites in the Metropolitan area.

The FLETC's Partner Organizations provide regular consultation regarding the Center's myriad training programs. The Glynco facility provides numerous basic training programs, advanced programs, and specialized training programs for state, local, and foreign law enforcement personnel. The major portion of the Center's training activity is devoted to basic programs for criminal investigators and uniformed police officers who have the authority to carry firearms and make arrests. Advanced and specialized training programs are limited to subjects that are common among two or more of the FLETC's Partner Organizations. Requalification of active law enforcement personnel is considered advanced training. Because a majority of available training time is provided for basic training programs, fewer advanced program requests are accommodated. This causes user agencies with advanced training and requalification needs to seek facilities in other locations, especially within the Washington, DC area.

Alternatives 2, 3, and 4 are expected to result in impacts to the human and natural resource environments as the Cheltenham site is developed. Issues that have been identified in this EA include noise and traffic concerns, impacts to project area wetlands and waterways, and vegetation manipulation. The FLETC facility site in Cheltenham is a unique site because of its proximity to various primary user agencies and its existing facilities that can be renovated to provide for housing, administrative, and tactical requirements. These factors make it especially capable of meeting the stated needs expressed by Congress and the Department of Treasury for the development of the authorized requalification facility.

The FLETC must consider the unique training requirements of its various and diverse user groups. Each alternative was thoroughly evaluated relative to its potential to satisfy those myriad requirements. It is important to note that, while Alternative 2 may result in minor impacts to adjacent wetlands, it does satisfy most if not all of the operational requirements of the user agencies.

Table 3 presents a qualitative summary of the environmental and operational impacts associated with the alternatives that are further evaluated in this assessment.

TABLE 2
GENERAL SERVICES ADMINISTRATION SURPLUS PROPERTIES – NATIONAL CAPITAL REGION
POTENTIAL ALTERNATIVE 5 SITES – FLETC SATELLITE REQUALIFICATION TRAINING CENTER

Property	Location	Acreage	Remarks
Square 62	23rd & C Streets Washington, DC	0.695 acres	Size and location unsuitable
Lorton	Fairfax County, VA	3,000 acres	Not available – under special legislation
De LaSalle Building	4900 LaSalle Road Washington, DC	17.79 acres	Adjacent to retail, residential, and park area, densely populated. Insufficient area for driving range and noise concerns make site unsuitable.
Forest Glen	Silver Spring, MD	31 acres	Site remains U.S. Army property and, therefore, not available.
La Plata Housing	La Plata, MD	13.3 acres	Located 55 miles from Washington, DC, space available is insufficient and site is located close to a school, making site unsuitable.
Washington Court Apartments	Edgewood, MD	28 acres	Located 61 miles from Washington, DC surrounded by residential area and school complex, and space is minimal, making site unsuitable.
Union Station Air Rights	Washington, DC	N/A	Associated with air rights only; no land available.
St. Elizabeth's Hospital – West Campus	Washington, DC	182 acres	Located adjacent to a high density residential area and an active mental health facility, the site is unsuitable.

TABLE 3
SUMMARY OF ENVIRONMENTAL AND OPERATIONAL CONSEQUENCES

Alternatives				
Area of Impact	**Alternative 1 - No Action**	**Alternative 2 – Proposed Action**	**Alternative 3 – Smaller Driving Range**	**Alternative 4 – Relocated Driving Range**
Physical Resources	No impact	Earth disturbance and topography impacts. Minor noise and traffic impacts. Proper disposal of hazardous waste materials.	Earth disturbance and topography impacts. Minor noise and traffic impacts. Proper disposal of hazardous waste materials.	Earth disturbance and topography impacts. Minor noise and traffic impacts. Proper disposal of hazardous waste materials.
Water Resources	No impact	Wetland & stream impacts likely. Erosion and Sedimentation (E&S) measures necessary. Groundwater sources unaffected. MDE involvement.	No wetland or stream impacts. E&S measures necessary. Groundwater sources unaffected.	Minor isolated wetland & stream impacts. E&S measures necessary. Groundwater sources unaffected.
Biological Resources	No impact	No permanent impacts to site species anticipated. Impacts to terrestrial (vegetation) habitat during construction activities. Temporary relocation of some species. Ongoing vegetation management would occur.	No permanent impacts to site species anticipated. Impacts to terrestrial (vegetation) habitat during construction activities. Temporary relocation of some species. Ongoing vegetation management would occur.	No permanent impacts to site species anticipated. Impacts to terrestrial (vegetation) habitat during construction activities. Temporary relocation of some species. Ongoing vegetation management would occur.
Cultural Resources	No impact	No impact	No impact	No impact
Visual Quality	No impact	New construction minimally visible from offsite. Architectural design would utilize materials to blend with existing structures. Reuse of existing structures.	New construction minimally visible from offsite. Architectural design would utilize materials to blend with existing structures. Reuse of existing structures.	New construction minimally visible from offsite. Architectural design would utilize materials to blend with existing structures. Reuse of existing structures.

TABLE 3
SUMMARY OF ENVIRONMENTAL AND OPERATIONAL CONSEQUENCES

Alternatives				
Area of Impact	**Alternative 1 - No Action**	**Alternative 2 – Proposed Action**	**Alternative 3 – Smaller Driving Range**	**Alternative 4 – Relocated Driving Range**
Access/Traffic	No impact	Impact of staff and student traffic would not exacerbate the current levels of service. Improvements planned by Prince George's County/Maryland to MD 5/Surratts Road intersection.	Impact of staff and student traffic would not exacerbate the current levels of service. Improvements planned by Prince George's County/Maryland to MD 5/Surratts Road intersection.	Impact of staff and student traffic would not exacerbate the current levels of service. Improvements planned by Prince George's County/Maryland to MD 5/Surratts Road intersection.
Utilities	No impact	Existing water, sanitary wastewater, electric power, and communications services are adequate to support site operations with upgrades to onsite systems planned.	Existing water, sanitary wastewater, electric power, and communications services are adequate to support site operations with upgrades to onsite systems planned.	Existing water, sanitary wastewater, electric power, and communications services are adequate to support site operations with upgrades to onsite systems planned.
Community Characteristics	No impact	Land use compatible. Population in region would increase due to new staff. Student population is transient-no onsite student residents. Existing medical/fire/safety services are adequate. No environmental justice issues.	Land use compatible. Population in region would increase due to new staff. Student population is transient-no onsite student residents. Existing medical/fire/safety services are adequate. No environmental justice issues.	Land use compatible. Population in region would increase due to new staff. Student population is transient-no onsite student residents. Existing medical/fire/safety services are adequate. No environmental justice issues.
Operational Impacts	No impact	Supports essential expansion of services and continuation of FLETC mission; Driving range length provides effective training environment.	Supports essential expansion of services and continuation of FLETC mission; driving range length provides less than satisfactory training environment.	Supports essential expansion of services and continuation of FLETC mission. Impedes further expansion potential of facilities associated with FTF.

3. AFFECTED ENVIRONMENT

This section presents the baseline environmental conditions for the Alternatives 2, 3, and 4 at Cheltenham, MD site. The various environmental resources affected by the Proposed Action, and the effects of the existing environment on the alternatives themselves are presented. Chapter 4 details the effects of the alternatives on the existing environment, and is formatted in a manner similar to the presentation in this chapter.

The environmental baseline discussion addresses the 232-acre Cheltenham site and the immediate surrounding region wherein impacts due to implementation of the alternatives may be anticipated.

3.1 PHYSICAL RESOURCES

3.1.1 CLIMATE

Prince George's County has a humid, temperate, semi-continental climate. Winters are generally mild, and summers are warm and moist. Spring and fall bring moderating temperatures and humidity levels.

The majority of weather systems move from west to east through the county. Warm, moist air moves up from the Gulf of Mexico during the summer months. Cold, dry air from central Canada dominates the winter months. These systems can be moderated as they move over the Appalachian Mountains. The nearby Atlantic Ocean can also act as a moderator of summer temperatures as cooler air is sometimes circulated inland over the warmer landmass. Similarly, the Atlantic Ocean can influence winter weather as well. Raw, uncomfortable weather and much of the precipitation in winter are brought in by on-shore winds (northeasters) that precede low-pressure systems moving northward along the coast.

Historic climatological conditions and statistics were collected for the years 1961 to 1996 from the nearby Andrews Air Force Base, which is located approximately 3 miles to the north of the Cheltenham facility. The following data are reported for this period:

Annual mean temperature	54.91^{o} F
Annual average minimum temperature	46.08^{o} F
Annual average maximum temperature	63.74^{o} F
Annual average precipitation	36.11 inches per year
Annual average snowfall	25.28 inches per year

The hottest period of the year is the latter half of July when the maximum afternoon temperatures average about 88^{o} F. The coldest period of the year is latter part of January and the early part of February, when the minimum temperatures average about 25^{o} F.

In general, precipitation is fairly evenly distributed throughout the year, ranging from 3 to 4 inches per month. It typically increases to 4 to 5 inches from May to September. Thunderstorms occur on an average of 30 to 35 days each year. Two-thirds of those storms occur in the period June through August. Droughts can occur in any month throughout the year, however they typically occur more frequently in the summer months.

The prevailing winds are from the northwest, except from May through September, when warm south or southwest winds result from high-pressure systems that are centered to the east or southeast of the county. The average annual velocity of wind is between 8 and 10 miles an hour, but winds of 60 miles per hour or higher sometimes accompany severe thunderstorms or hurricanes in summer or general storms in winter.

3.1.2 SOILS, GEOLOGY, AND TOPOGRAPHY

Several physical factors can influence the selection and design of a building site and corridor for a facility such as the one proposed at Cheltenham. These include soil conditions, geology, and topography within the study area. The lithology and geologic structure (both external and internal) control not only the stability of cut slopes, suitability of excavated materials as fill, ease of excavation, settlement of embankment and stability of pavements, but also the residual soil cover and ground water conditions. When combined with topography, these two conditions can also control the stability of sidehill fill slopes.

The evaluation of soil and geologic conditions for the proposed FLETC Cheltenham facility is based upon research of published literature on soils and geology of the area, a review of the available subsurface information, and contacts with appropriate state and local agencies. Also, field reconnaissance was conducted to review existing site conditions within the 232-acre project area. Data collection included the identification of features that may influence selection of the DMURC alignment and potential building site selection.

Soils

A soil profile was developed for the project using the Soil Survey of Prince George's County, Maryland (United States Department of Agriculture, Soil Conservation Service, 1967). The characteristics and properties of each complex were derived from a review of this published document. Figure 6 represents the soils map for the site area. Table 4 contains the soil complexes that occur within the project area.

TABLE 4
PROJECT AREA SOILS

Soil Type	Description
Croom-Urban Land Complex (CuE)	This soil has steep slopes of 15 to 35 percent, resulting in the terracing and grading of most of this area for community development.
Croom-Urban Land Complex (CuC)	Except for steeper slopes (8 to 15 percent), this complex is like CuB.
Croom-Urban Land Complex (CuB)	Consists of Croom soils (at 0 to 8 percent slope) that have been severely disturbed or altered by machines for community development.
Iuka-Urban Land Complex (Ix)	This soil consists of nearly level silty and sandy deposits on local alluvium. Soils identified as having hydric inclusions include the Iuka-Urban Land Complex.
Beltsville-Urban Land Complex (BmB)	This soil has 0 to 5 percent slopes and consists primarily of disturbed land. Areas containing BmB soils have been rearranged into complex patterns in the landscape to be used for community development. Soils identified as having hydric inclusions include the Beltsville-Urban Land Complex.
Bibb Sandy Loam (Bn)	This soil has a sandy loam surface layer that is approximately 3 feet thick. It consists of silty and sandy deposits from nearby waterways. Many places containing this soil are nearly level.

Soil characteristics and properties that may impact the proposed project include: ease of excavation, soil plasticity, soil corrosion potential, soil erodibility, and drainage characteristics. The majority of soils at the site are mapped as urban land that has been disturbed in construction. As such, the above-mentioned characteristics and properties are not estimated or documented in the Soil Survey for Croom, Beltsville, Iuka, and Matapeak soils.

The soil associations within the study area have been identified by the USDA/SCS in the soil survey of Prince George's County, Maryland. A soil association is defined as a group of soils that occur together and have similar origins, but exhibit distinctive characteristics. Two soil associations occur within the study area. These associations include the Sassafras-Croom Association and an area of Bibb-Tidal Marsh Association. The Sassafras-Croom Association consists of "gently sloping to steep, well-drained, dominantly gravelly soils"(SCS, 1967). Some of these soils have a compact subsoil and substratum. The Bibb-Tidal Marsh Association, which includes soils along the Piscataway Creek, includes "poorly drained soil of the floodplains and soils in marshes that are subject to tidal flooding" (SCS, 1967).

The paragraphs that follow provide more detailed descriptions of soil properties.

Beltsville Complex (BmB)

The Beltsville complex consists of moderately well drained sandy loam and silt loams over a dense impervious, compact layer (fragipan). It is underlain by sand, silt, clay, or gravel, with 1 to 2 feet to water table seasonally perched above the fragipan. Urban land in mapping unit BmB has been disturbed in construction; properties are highly variable and cannot be estimated. The Beltsville soils occur with the well-drained Matapeake soils, the moderately well drained Mattapex soils, and the poorly drained Othello soils. The native vegetation is mainly hardwoods, but in some places it is Virginia pine.

The developed portions of the site consist primarily of the Beltsville-series soil. The underlying fragipan results in a seasonal perched high water table of one to two feet below the ground surface.

Croom Complex (CuB, CuC, CuE)

The Croom complex consists of excessively drained gravelly loams that have very hard, compact subsoil and stratum with 5 feet or more depth to the water table. Urban land in mapping units CuB, CuC, and CuE has been disturbed in construction; properties are highly variable and cannot be estimated. The Croom series occur with the less gravelly, moderately well drained Beltsville soils and with the gravelly Sassafras soils, which are deeper and looser than the Croom soils. The native vegetation on Croom soils is primarily Virginia pine and scrub hardwoods.

Bibb Complex (Bn)

The Bibb complex consists of deep, level or nearly level, poorly drained sandy loam on floodplains along streams. It consists of recent alluvium washed from Coastal Plain sediments; 0 to 1 foot to seasonally high water table. These soils are subject to periodic flooding, thereby limiting construction activities. The Soil Survey identified Bibb sandy loam as a hydric soil. Most areas of this soil are in forests consisting of maple, gum, oak, and other hardwoods that tolerate wetness.

Iuka (Ix)

The Iuka complex consists of moderately well drained sandy loam, fine sandy loams and silt loams on flood plains and foot slopes. This complex consists of recent alluvium washed from Coastal Plain, underlain by gravel in places. The soils occur 1 to 2 feet to the seasonally high water table. These soils are subject to flooding in most places. Urban land in mapping units Ix has been disturbed in construction; properties are highly variable and cannot be estimated. The Iuka soils are on the same general kinds of material as the well-drained Ochlockonee soils, the poorly drained Bibb soils, and the very poorly drained Johnston soils. The native vegetation consists mainly of mixed hardwoods, but in many places the stand contains yellow poplar.

The Iuka soil series dominates the steep slopes on the northeast and southwest, and the flood plain area in the southeast portion of the property.

Matapeake Silt Loam (MpB)

Matapeake soils are well drained fine sandy loams and silt loams situated over up to two feet of light silty clay loam, over older deposits of sandy loam, and in some places, gravelly materials. The Matapeake soils are on nearly level or rolling to fairly steep uplands of the Coastal Plain. The Matapeake soils are on the same kinds of material as the moderately well drained Mattapex soils and the poorly drained Othello soils. Urban land in mapping units MpB has been disturbed in construction; properties are highly variable and cannot be estimated. The native vegetation is mixed upland hardwoods, mainly oak.

Geology

The study area lies on the western edge of the Coastal Plain Province. The Coastal Plain Province is composed of unconsolidated sediments (including gravel, sand, silt, and clay), which overlaps the rocks of the eastern Piedmont along an irregular line of contact known as the Fall Zone. Eastward, this wedge of sediments thickens to more than 8,000 feet at the Atlantic coast line. Beyond this line is the Continental Shelf, the submerged continuation of the Coastal Plain, which extends eastward for at least another 75 miles where the sediments attain a maximum thickness of about 40,000 feet.

Maryland's geologic map depicts three bands of sediments (Cretaceous, Tertiary and Quaternary) which run southwest to northeast. The farther north and west one goes, the older the sediments become. The youngest sediments cover Maryland's lower Eastern Shore. These bands appear because the sediments are not completely horizontal, but are tilted eastward at a slight angle.

Because the formations are sedimentary, the Coastal Plain is rich in fossils. Miocene and Eocene fossils can be found in the Tertiary formations in southern Maryland as well on the Eastern Shore. Cretaceous fossils can be found in Kent and Cecil counties.

Quaternary, Tertiary, and Cretaceous-aged strata of continental and marine origin (Cenozoic Era) underlie the site. Quaternary units include upland deposits composed primarily of gravel and sand. These deposits are commonly orange-brown, and locally limonite-cemented. It includes minor silt and red, white, or gray clay. The total thickness of this formation is approximately 50 feet. Tertiary units include sediments from the Calvert Formation, which is composed of two separate members – the Plum Point Marls and the Fairhaven formations. The Plum Point Marls member is interbedded dark green to dark bluish-gray, fine-grained argillaceous sand and sandy clay. It contains prominent shell beds and locally silica-cemented sandstones. The Fairhaven Member is composed of greenish-blue diatomaceous clay. It weathers to pale gray. It also includes pale brown to white, fine-grained argillaceous sand and greenish-blue sandy clay. The total thickness of the Calvert Formation is approximately150 feet. The Cretaceous-aged Magothy Formation underlies the Tertiary units. This formation consists of loose white, cross-bedded, lignitic sands, and dark gray, laminated silty clays. The total thickness of the Magothy Formation is approximately 60 feet.

Topography

The study area is characterized by flat to rolling terrain with a series of gently sloping valleys and shallow ridges. The property slopes gently from the northwest toward the southeast with steep slopes occurring at the property's lowest point in the southeastern corner. The southeastern portion of the property, in the vicinity of the southeast entrance, is situated outside the Piscataway Creek flood plain. Two major ridges bisect the central portion of the property, providing drainage away from site facilities, which are located between the two ridges.

The majority of the developed land within the project area is at an elevation of approximately 230 feet above mean seal level (amsl), with the highest elevation located at the northern end of the site (240 feet amsl). The predominant topographic feature in the southwestern one-half of the site (below Commo Road) includes a gentle slope to the southwest, away from the site buildings, toward a shallow stream course that enters the site at an elevation of 170 feet amsl. The northeastern half of the site (above Commo Road) is characterized by more rolling topography. Slopes within the project area range from approximately 6 percent to 22 percent.

The topography and the predominant topographic features are depicted on Figure 7.

3.1.3 AIR QUALITY

The United States Environmental Protection Agency (USEPA) and the MDE have designated Prince George's County as an attainment area for particulate matter, sulfur dioxide, lead, carbon monoxide, and nitrogen dioxide pollutants. This designation means that the quality of the ambient air within a region, as sampled by the state's ambient monitoring network, is within the criteria set in the federal National Ambient Air Quality Standards (NAAQS), and any similar state standards. Ambient air standards are usually either primary or secondary standards. Primary standards are set to protect the public's health, including sensitive populations such as children, asthmatics, or the elderly. Secondary standards are set to protect public welfare, including protection against decreases in visibility, and damage to agriculture, vegetation, and buildings.

The Prince George's County region is, however, classified serious nonattainment for the pollutant ozone. Ozone exposure can reduce lung function and induce respiratory inflammation, resulting in chest pain, coughing, sneezing, and pulmonary congestion. Ozone is rarely emitted directly from a source, but rather is created in the atmosphere by a reaction between various oxides of nitrogen and volatile organic compounds in the presence of sunlight. These pollutants are emitted by not only the stationary sources such as power plants or manufacturing operations, but also are a result of operating internal combustion engines from traffic sources. The degree of nonattainment status (moderate, serious, severe, extreme) is dependent on the extent of exceedances of the standards and the time span available to the state to achieve compliance with the standards. Compliance is achieved by a combination of tightening the emission standards for stationary sources, and improvements in transportation emissions per vehicle mile traveled by improving both the combustion technology itself and instituting transportation plans to improve numbers of passengers per vehicle, reduce wait/idle times, and stimulate use of other forms of transportation such as mass transit in lieu of individual vehicle usage.

The ozone ambient concentrations in Prince George's County (Maryland Air Quality Data Report-MDE, 2000) have exceeded the 1-hour (0.12 parts per million) and 8-hour (0.08 parts per million) primary and secondary standards several times, resulting in the county's designation as serious nonattainment for ozone. Monitoring stations for ozone within the county are located at Greenbelt and Suitland.

Need for, and extent of, air regulatory permitting with MDE is dependent on the quantities of individual pollutants to be emitted by a source operation. De minimis criteria exist wherein smaller sources may be exempted from permit to construct requirements. Should a source operation have the potential to emit greater quantities of pollutants, it may be classified as a major source and subject to the USEPA's Title V Part 70 permit requirements. This program is administered by MDE under its Title 26 regulations.

No MDE air permits or approvals exist for the Cheltenham site as it has been inactive for over three years. Operating permits were issued by MDE for the heating plant boilers when those units were in use. No permits were required for the emergency generators as they operated only sporadically to provide backup power.

3.1.4 NOISE

Ambient noise levels in the vicinity have received no contribution in recent years from the former NCDC since no activities have occurred onsite during since1998. Information concerning the existing noise levels is found in Section 4.2.1 (D); an assessment of existing noise levels was performed prior to the prediction of future noise levels generated by training activities at the site (Appendix C).

3.1.5 HAZARDOUS MATERIALS/HAZARDOUS WASTE

A hazardous waste screening was performed to identify known and suspected sources of hazardous waste and to determine their potential impacts on the Proposed Action. The screening effort was conducted through the following tasks:

- Assessment of historical land use activities
- Site personnel interviews
- Project area walkover to discover the presence of potential hazardous waste sites and related concerns
- Review of historical site investigation/assessment/survey documents

A base-wide Environmental Baseline Survey (EBS) of the then Naval Communication Detachment-Cheltenham (NCDC) facility was conducted in 1994. The purpose of the EBS was to "compile information regarding environmental conditions on the base, document the nature and extent of known environmental contamination on the base, and identify uncontaminated and potentially contaminated on-base and adjacent parcels"(Geoscience Consultants, Ltd., December 1994). Much of the following site-specific information was obtained from the EBS report, which can be found in Appendix D.

Numerous waste site investigations have been conducted within the 232-acre project area. Throughout the 1990's, several investigations were conducted to characterize the vertical and horizontal extent of lead contamination in site soils, primarily in the vicinity of Water Tower 7 (Site 2), and Water Tower 107 (Site 3). On the basis of site investigation findings, it was determined that elevated lead levels in soils resulted from sandblasting lead-based paint from the water towers during the 1980's, which released approximately 1400 pounds of lead waste into the air around the towers. Some surface soil samples collected as part of a USEPA investigation were laboratory analyzed for hazardous characteristics using the toxicity characteristic leaching procedure (TCLP). Additional testing of 24 soil samples for 8 Resource Conservation and Recovery Act (RCRA) metals (silver, barium, cadmium, chromium, lead, arsenic, mercury, and selenium) indicated the presence of each metal in at least one sample. (CH2MHILL, July 1998)

Additional testing of the potable water supply was conducted in 1988 and 1993. Two wells, which are located in the vicinity of the water towers, were sampled. Drinking water was also sampled at the housing units and operational facilities. It was reported that, in all cases, the "Cheltenham water supply is below the Maryland action level for lead, defined as when ten percent or more of the representative samples exceed 0.015 mg/l (GCL, December 1994)." (CH2MHILL, July 1998).

Based on site investigation findings, it was determined that approximately 1,875 tons of lead-contaminated soil would be removed from site. In October 1996, 618 tons of hazardous soil and 2,396 tons of non-hazardous soil were excavated, transported, and disposed in a controlled landfill. Site restoration was completed within seven months of completion of the remediation activities.

According to the data provided in the EBS, a total of 27 underground storage tanks (USTs) have been removed from the facility. One 10,000-gallon, steel No. 2 diesel fuel tank, which was slurried (i.e., closed) in place, remains beneath Building 31 (former Communications Lab). With the exception of the following UST's, all tanks contained No. 2 diesel fuel throughout their lifespan.

- Two 12,000-gallon No. 6 diesel storage tanks (installed in 1957) associated with the Boiler Plant
- One 550-gallon water storage tank associated with Auto Hobby Shop (Building 12)
- One 550-gallon waste oil storage tank associated with Building 214 (replacement Auto Hobby Shop)
- One 2,000-gallon gasoline storage tank associated with Fire Station/Vehicle Maintenance Shop (Building 15)
- One 2,000-gallon water storage tank associated with the Former Bachelor Quarters (North)

In 1992, the two 12,000-gallon No. 6 diesel tanks were pulled and replaced with two upgraded 12,000-gallon No. 2 diesel fuel tanks, which were double-walled tanks, fully outfitted with spill and overflow protection including an alarm system. These two tanks eliminated in 2001, were the last USTs to be removed from the site.

MDE required the installation of monitoring and observation wells in the vicinities of six tank excavations. Upon the successful completion of the monitoring programs, MDE allowed closure of the wells. All wells were installed in accordance with the State of Maryland regulations to monitor leak detection; monitor wells were installed to monitor groundwater quality.

A total of eight electrical substations containing transformers and two associated switching stations were located at the former NCDC. Transformers at six of the eight substations and the two switching stations contained polychlorinated biphenyls (PCBs). The EBS findings indicated that all transformers were treated as though they contained PCBs and were subsequently replaced with non-PCB transformers. The PCB transformers were located at Buildings 1, 2, 13, 31, 84, 121, and 230, and at Stone Court, near Water Tower 107. The switching stations were located at the intersection of Commo Road and Ammon Drive and behind Building 31. According to information in the EBS, the facility became "PCB-free" in 1992.

Between 1984 and 1992, there were two reports of PCB leaks at the facility. The first leak occurred at Substation 1 in Building 1. From 1998 to July 1990, a drain valve was reported as "moist." In July 1990, a valve leak of an unknown quantity was detected at the transformer. Soil and wipe samples revealed elevated levels of PCBs in some samples. The Navy conducted a decontamination and remediation program during which concrete surfaces were cleaned in areas where PCB wipe sample concentrations were found to be above 100 micrograms per 100 square centimeters. Additionally, affected soils were excavated where PCB concentrations exceeded 25 milligrams per kilogram (mg/kg). Clean-up levels were directed by USEPA for outdoor substations. As indicated in the EBS, site representatives stated that the impacted area had been cleaned up.

A trace leak was observed at the transformer at the intersection of then-Redman Avenue and Ammon Drive. No report of remedial action was found regarding this leak, however. During a subsequent Quarterly Inspection, a tarry substance was identified on the ground. A swab test was conducted and the results indicated no PCBs present (EBS; Geoscience Consultants, Ltd., December 1994).

From 1984 to 1994, the Navy manifested the transport of approximately 128,000 pounds of waste PCBs, although the specific nature of the wastes is unknown. Additionally, fluorescent lighting units with ballasts that were manufactured before 1978 often contained PCBs in the form of dielectric fluids. At the time of the EBS, all buildings included lighting ballasts that did not contain the words "No PCBs."

In October 1992, NCDC conducted a radon test in buildings that were occupied in excess of four hours daily. The testing was conducted in core base Buildings 1, 2, 3, 13, 14, 15, 19, 22, 31, 49, 50, 84, and 230. The EBS reported that the radon testing results were found to be less than 3.0 picocuries per liter (pCi/L) in all core base buildings tested (EPA identifies a level of 4.0 pCi/L as an action level for remediation purposes).

Specific questions and inquiries regarding current radon levels within the core base buildings were generated at the public meeting held in October 2001. In response, the FLETC conducted an independent radon test in November 2001 during which radon canisters were placed in Buildings 1, 13, 31, and 50. The results indicated that none of the samples collected were found to be in any amount approaching the EPA Action Level for Radon, which is 4.0 pCi/L. This most recent survey can also be found in Appendix D.

At the time of the EBS, several operational and recreational facilities were found to store potentially hazardous and hazardous substances. Table 5, below, identifies the materials discovered during the EBS conducted in 1994, along with storage locations. According to site representatives, all hazardous substances were removed and properly disposed as part of the base closure program.

The EBS reports that nonhazardous solid waste, including paper goods, boxes, scrap wood, etc., was generated at the site.

The NCDC operated as a large quantity generator of hazardous waste (LQG). An LQR is a facility that generates more than 1,000 kilograms of hazardous waste per calendar month. During its operation, the facility disposed of the following wastes:

- Waste combustible liquid
- Hazardous waste contaminated with teletype cleaning solution
- Flammable liquids
- Ethylene glycol, waster, and acetone wastestream
- Oil and antifreeze mixture
- Petroleum and synthetic oil, water, and sludge wastestream
- Hazardous wastes of unknown composition
- Contaminated soil (waste oil, lead paint)

Under the Community Environmental Response Facilitation Act (CERFA) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), federal facilities that are undergoing closure or realignment must be assessed for "uncontaminated properties." Under CERFA, uncontaminated properties are any real property on which no hazardous substances or petroleum products, or their derivatives, were stored for one year or more, no known or suspected releases of hazardous substances or petroleum products have occurred, and no disposal of hazardous substances or petroleum products has occurred. The purpose of this identification is to facilitate the transfer of such property.

The EBS document included several conclusions and recommendations for implementing various remediation activities. Generally, it was concluded that uncontaminated properties exist around the perimeter of the NCDC. A total of 25 contaminated properties were identified during the EBS. These properties were divided into the following categories:

- Eight properties did not require additional remediation
- Eleven properties had undergone some form of remediation; no further action was required.
- Six properties were identified as needing some form of investigation and remediation.

The six areas identified as requiring additional investigation included the two water towers and a former landfill/burn site located near the southwest corner of the facility. Remediation of soils contaminated with lead paint from the water tower is discussed previously in this section. The NCDC operated the landfill site as a combined burning area and landfill. Wastes disposed at the landfill included excess building material (e.g., scrap metal, wood antenna poles) and general trash. General trash comprised waste paper, and small numbers of empty spray paint cans and empty solvent containers. This area was excavated and sampled as part of ongoing remediation at the site. No hazardous wastes were found. The former landfill site is now part of the Prince George's County Wetlands Park.

Since 1994, when the EBS was conducted, the remaining five areas identified as requiring additional investigation have been assessed and final actions have been completed. According to the EBS, there are no outstanding waste management issues remaining at the Cheltenham facility.

TABLE 5
HAZARDOUS SUBSTANCES STORAGE

Building Location	Hazardous Substances	Storage Location
Operational Facilities		
Building 1	Lube oil, isopropyl alcohol, flux soldering, computer screen care material	Flammable Storage Cabinets (Basement)
Building 1	Refrigerant, water treatment chemicals	Mechanical Room
Courtyard between Buildings 11 & 33	Mixed oil and water, lube oil, engine petroleum, miscellaneous equipment containing PCBs & freon	Metal and Plastic Drums, Miscellaneous Equipment
Building 11	Equipment may have contained freon	Front Interior
Building 13	Floor wax, misc. greases, soap, wax stripper, buffer, polishes, cleaners (may contain chlorinated solvents, petroleum-based compounds, oils and greases)	Flammable Storage Cabinet (Basement), Custodial Closet
Building 14	Paint Storage Room - Paints, mineral spirits, shellac, glass cleaners, lubricating oils, propane fuel cylinders, adhesives, general purpose and battery cleaners, misc. maintenance supplies, pesticides, fungicides, ammonia hydroxide, chlorothene, solvents Flammable Cabinets – Cans of chlorothene, methyl ethyl ketone, TF fluorocarbon, solvent remover, carpet cleaner, epoxy coating, insect killer, mineral oil, solvent remover	Paint Storage Room & Flammable Storage Cabinets
Building 15 – Interior	Gasoline containers	Flammable Storage Cabinet
Building 15 – Exterior	Beneath a Shelter - Ethylene glycol, corrosive water treatment chemicals, 55-gallon metal drums containing waste oil, hydraulic oil, cylinders of carbon dioxide, oxygen, bromochlorodifluoromethane, helium, nitrogen, chlorine Storage Cabinets – containers of gasoline	Exterior – Flammable Storage Cabinets, Metal drums
Building 31	Corrosive water treatment chemicals	Boiler Room

TABLE 5
HAZARDOUS SUBSTANCES STORAGE

Building Location	Hazardous Substances	Storage Location
Building 64	Sulfuric acid batteries, other batteries of unknown content, lead batteries	Power Supply and Battery Room
Building 108	Chlorine	Interior
Building 110A	Miscellaneous paints, solvents, adhesives, epoxy and shellac thinners, glues, alcohol, shellac, trichlorofluoroethane, cements, oil cleaners, wood fillers	Flammable Storage Trailer
Building 110B	Hydraulic fluids, lubrication oils, adhesives, germicidal detergent, soldering flux, concrete pipe joint filler, boiler water treatment, cooling water treatment, coil deslimer, muriatic acid, degreaser, insecticide, ammonium hydroxide	Corrosive Storage Trailer
Generators	Lead batteries	Buildings 2, 64, 13, 108
Recreational Facilities		
Building 10	Empty propane tank, empty 55-gallon drum	Flammable Storage Cabinets
Building 122	Potential storage of chlorine used for pool filtering system	N/A
Building 214	Gasoline, wood finish chemicals, shellac, disinfectant, floor wax, corrosive floor stripper, corrosive bleach, denatured alcohol	Flammable Storage Cabinet

3.2 WATER RESOURCES

3.2.1 SURFACE WATER

Two tributaries to the Piscataway Creek were found within the project area. One tributary is located along the western edge of the project area. This tributary enters the project area approximately 300 feet south of the northern boundary, flows south, and exits in the vicinity of Goulett Lane. The other tributary is located in the southeastern portion of the project area. This tributary enters the project area in the vicinity of the Prince George's County Fire Training Academy, flows south towards Commo Road, and crosses Commo Road in a southwesterly direction before exiting the project area. Both tributaries converge with the Piscataway Creek south of the project area. Although these streams contained water during an August 2001 site visit, several portions of the streams were dry during an October 2001 site visit. Figure 7 depicts surface waters on the site.

Several ephemeral drainage channels were also identified within the project area. These channels remain dry except during rain events when they collect stormwater from the facility. The channels are located southwest of Commo Road near the Officer Housing Area, south of Hooper Road near the eastern boundary of the project area, and east of the Officer Housing Area near the eastern boundary of the project area. The channels flow into the tributary to the Piscataway Creek in the southeastern portion of the project area.

3.2.2 FLOODPLAINS

The majority of project area is outside of any designated 100-year flood zone. The Federal Emergency Management Agency's (FEMA) National Flood Insurance Program Flood Insurance Rate Map of Prince George's County, MD identifies acreage (Zone A) within the southeastern portion of the project area that is within the 100-year flood boundary of the Piscataway Creek (see Figure 8). Further, a small portion of this acreage (Zone B) is located within an area designated as between the limits of the 100-year flood and 500-year flood. The flood prone area is located on property currently utilized by the Prince George's County Fire Training Academy. The FLETC has proposed that legal ownership of this property be transferred, in its entirety, to Prince George's County.

3.2.3 WETLANDS

STV conducted a wetland delineation at the Cheltenham site in August, 2001. Wetlands were identified within FLETC property, primarily in the southeastern portion of the property and along a tributary to the Piscataway Creek along the western property boundary. Figure 9 illustrates the location and extent of these wetlands. The complete wetland report is found in Appendix E.

Wetlands satisfy three essential technical criteria: hydrophytic vegetation, hydric soils, and wetland hydrology. A complete description of these criteria and the plant indicator status for each wetland surveyed are contained in the report.

Wetland WKS-A is a 0.068 acre, isolated, palustrine emergent wetland located in the northern portion of the project area, east of Commo Road. At the time of the delineation, evidence of hydrology included pockets of standing water. Dominant vegetation included soft rush, spike rush and field paspalum.

Wetland WKS-B is a 4.968-acre wetland adjacent to a tributary to the Piscataway Creek. The wetland is primarily contained within the bed and banks of the tributary in the northern portion of the stream, with scattered pockets of adjacent palustrine emergent wetland. Evidence of hydrology within the palustrine emergent portions included drainage patterns. The southern portion of the stream widened to a predominantly palustrine forested wetland. At the time of the delineation, the southernmost portion of Wetland WKS-B contained standing water up to 8 inches in depth. Dominant vegetation in the palustrine emergent portion of the wetland consisted of soft rush, stout wood reedgrass, panic grass, flatsedge, and tearthumb. Dominant vegetation in the palustrine forested portion of the wetland consisted of red maple, panic grass, sensitive fern and false nettle.

Wetland WKS-C is a 0.232-acre, isolated, forested emergent wetland located in the southern portion of the project area, in the vicinity of the former officer housing area, east of Commo Road. At the time of the delineation, Wetland WKS-C contained pockets of standing water. Dominant vegetation included sweetgum, red maple, pin oak and false nettle.

Wetland WKS-D is a 0.234-acre, isolated, forested emergent wetland located in the northern portion of the project area, west of Commo Road and north of Wetland WKS-B. Evidence of hydrology included water stained leaves, oxidized root channels and drainage patterns. Dominant vegetation consisted of red maple, sweetgum, soft rush, sensitive fern and small reedgrass.

Wetland RB-A is a 0.063 acre, isolated, palustrine emergent wetland located in the southern portion of the project area, in the vicinity of the former officer housing area, east of Commo Road and west of Wetland WKS-C. Evidence of hydrology included saturated soil in the upper 12-inches and watermarks. Hydrology for Wetland RB-A appears to originate from stormwater drainage from the housing facility. Dominant vegetation included wool-grass, New York aster, willow species and rush species.

Wetland RB-B is a 7.153 acre, palustrine forested wetland located in the southeastern most portion of the project area, northeast of Commo Road. It was hydrologically connected to the Piscataway Creek. Wetland RB-B extends beyond the project area boundaries. Evidence of hydrology included oxidized root channels and water-stained leaves. Dominant vegetation included black willow, red maple, false nettle, knotweed, arrow-leaved tearthumb, and small reedgrass.

Wetland HF-A is a 0.682 acre, mixed palustrine forested/palustrine emergent wetland located in the southeastern most portion of the project area, southwest of Commo Road. Wetland HF-A exhibited saturated and inundated soils, and drainage patterns. Wetland HF-A extended beyond the project area boundary, and was hydrologically connected to the Piscataway Creek. Dominant vegetation in the palustrine portion included jewelweed, tearthumb, New York aster, pin oak and red osier dogwood. Dominant vegetation in the forested portion included sweetgum and sycamore.

Wetland HF-B is a 0.877 acre, palustrine forested wetland located in the southeastern portion of the project area, southwest of Commo Road and north of Wetland HF-A. Wetland HF-B contained pockets of standing water up to ½-inch in depth. Wetland HF-B extended beyond the project area boundary, and was hydrologically connected to the Piscataway Creek. Dominant vegetation included sweetgum and sycamore.

Wetland HF-C is a 0.607 acre, palustrine forested wetland located in the southeastern portion of the project area, immediately adjacent to the southwest side of Commo Road. Evidence of hydrology within Wetland HF-C consisted of saturated soils in the upper 12-inches and drainage patterns. Dominant vegetation included red maple, sweetgum and soft rush.

Wetland HF-D is a 1.258 acre, palustrine forested wetland located in the southeastern portion of the project area, southwest of Commo Road and northwest of Wetland HF-A and HF-B. Evidence of hydrology within Wetland HF-C consisted of drainage patterns. Wetland HF-D extended beyond the project area boundary, and was hydrologically connected to the Piscataway Creek. Dominant vegetation included sweetgum, Virginia bugleweed, and watercress.

Wetland HF-E is a 0.759 acre, palustrine emergent/palustrine forested wetland located in the southeastern portion of the project area, southwest of Commo Road and west of Wetland HF-D. Evidence of hydrology within Wetland HF-E included saturated soils, channels, and pockets of standing water. Wetland HF-E extended beyond the project area boundary, and was hydrologically connected to the Piscataway Creek. Dominant vegetation in the palustrine emergent portion of the wetland included soft rush and wool-grass. Dominant vegetation in the palustrine forested portion of the wetland included sycamore and sweetgum.

3.2.4 GROUNDWATER

The project area is located within the Northern Atlantic Coastal Plain aquifer system, which consists of six regional aquifers in sedimentary deposits that range in age from Early Cretaceous to Holocene. The project area is underlain by the Surficial, Chesapeake, Castle Hayne – Aquia, Severn-Magothy, and Potomac Aquifers. The boundaries of the aquifers are irregular and none of them extend across the entire Coastal Plain. Primarily, the project area receives potable water from the surficial, Castle Hayne-Aquia, and Severn-Magothy aquifers. The following paragraphs briefly describe each aquifer (USGS, date unknown).

Surficial Aquifer

Although of limited extent, the surficial aquifer is the uppermost aquifer in the Northern Atlantic Coastal Plain aquifer system. This aquifer consists of unconsolidated, locally gravelly sand, mostly of Quarternary age. Many small-scale aquifers constitute the surficial aquifer. For the most part, the unconsolidated sediments that make up the surficial aquifer are unsaturated or else yield little water to wells. In the project area, however, some wells completed in the aquifer can be expected to yield up to 50 gallons per minute. Throughout much of the coastal area, the surficial aquifer is recognized as a principal aquifer not because of its potential to yield large volumes of water, but because the underlying aquifers commonly contain saline water and their use is thus restricted.

Groundwater within the surficial aquifer exists predominately under unconfined conditions, but clay beds locally create confined conditions. Almost all the flow within the aquifer is local; that is, water moves from recharge areas along short flow paths to discharge to the nearest stream or other surface-water body. Some water, however, percolates downward to recharge the underlying aquifers.

Water in the surficial aquifer is especially susceptible to contamination by human activities because the aquifer is exposed at the land surface. For example, nitrogen and lime that are added to the soil during crop production can enter the water. Livestock wastes and septic-tank fields also produce nitrogen, the end product of which is nitrate in the ground water. Local contamination also can result from seepage from landfills, leakage from underground storage tanks, chemical spills, and infiltration of urban contaminants.

Castle Hayne-Aquia Aquifer

This aquifer underlies the Chesapeake aquifer in some places; a clayey confining unit separates the two aquifers in those locations. In the vicinity of the project area, this aquifer is composed mostly of glauconitic sand that becomes clayey and almost impermeable. Glauconite is active in base-exchange reactions where the mineral exchanges sodium ions for calcium ions, which naturally softens the water.

A clayey confining unit overlies the aquifer almost everywhere and is thickest on the western shore of the Chesapeake Bay in Maryland where it consists of as much as 250 feet of diatomaceous clay. The maximum thickness of the Castle Hayne-Aquia aquifer in Delaware, Maryland, and Virginia exceeds 460 feet, and the average thickness is about 140 feet.

In some locations, the transmissivity of the aquifer is less than 1,000 feet squared per day. Outside of these areas, the Castle Hayne-Aquia aquifer is considered to be a major aquifer. The aquifer is thin in Maryland. Consequently, Maryland has been found to be an area of low transmissivity. The aquifer thins westward because it pinches out as a result of erosion, but the eastward thinning is the result of a change in facies from sand to clay.

Severn-Magothy Aquifer

This aquifer underlies the Castle Hayne-Aquia aquifer in the project area. The Severn-Magothy aquifer underlies most of the New Jersey Coastal Plain and the Delmarva Peninsula and is on the Maryland part of the western shore of Chesapeake Bay. This aquifer consists of fine to medium sand, and is overlain by a silt and clay confining unit. The aquifer consists of permeable sand beds of Late Cretaceous age. The top of the aquifer is slightly above sea level along its northwestern limit and slopes southeastward to depths of more than 2,000 feet below sea level. Except where it crops out near its western limit, the aquifer is overlain by a confining unit of silt and clay.

Confining units of clay and silt separate the local Severn and Matawan aquifers and the local Matawan and Magothy aquifers. Each of the confining units is generally from 50 to 75 feet thick in Delaware but is thinner in Maryland and Virginia. The maximum thickness of the Severn-Magothy aquifer in Delaware, Maryland, and Virginia is about 385 feet; the average thickness is about 185 feet.

3.3 BIOLOGICAL RESOURCES

3.3.1 VEGETATION

The land use/cover types within the project area were determined based on visual observations and a review of aerial photographs. Dominant land use/cover types consist of developed land and forest. A small area of herbaceous rangeland is also found along a tributary to the Piscataway Creek on the northwestern side of the project area.

The center portion of the project area consists of developed land. This development is immediately surrounded by maintained lawns with scattered trees and ornamentals, such as sycamore *(Platanus occidentalis)* and arborvitae *(Thuja orientalis)*.

Large stands of mature forest were found along the perimeter of the project area. Conifer stands consisting predominantly of planted pitch pine (*Pinus rigida*) were found near the northern entrance to the facility, along Commo Road. Dominant trees in the northeast portion of the study area consisted of pitch pine, yellow poplar (*Liriodendron tulipifera*), and sweetgum (*Liquidambar styraciflua*). Dominant trees in the southeast portion of the study area consisted of red maple (*Acer rubrum*), sycamore and yellow poplar. The northwestern portion of the study area consists primarily of red maple and sweetgum. The southwestern portion of the study area includes a larger variety of trees including sweetgum, pitch pine, red maple, sycamore, and red oak (*Quercus rubra*). Figure 10 illustrates the locations of dominant tree types within the project area.

The tributary to the Piscataway Creek, located in the northwestern portion of the study area, is bordered by mixed herbaceous and scrub/shrub rangeland. Dominant species include grape vines (*vitis sp.*), greenbrier (*Smilax rotundifolia*), Japanese honeysuckle (*Lonicera japonica*) and deertongue grass (*Panicum clandestinum*).

The threatened/endangered species response letter from Maryland Department of Natural Resources, dated August 7, 2001, stated the forested areas on the project site contain Forest Interior Dwelling habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States.

3.3.2 WILDLIFE

The forested and wetland portions of the study area provide suitable habitat for a variety of wildlife species. Several wildlife species, or evidence of species' existence, were identified during an August 2001 site visit. Species observed in the forested portions of the study area included white-tailed deer, box turtle, gray squirrels, toads, and various species of bird including blackbirds, robins, mocking birds, wild turkey, and crows. Species, or evidence of species

observed in the wetlands included beavers and green frogs. Other species common to the region that are expected to be present in the study area include skunks, eastern cottontail rabbits, eastern mole, meadow vole, red-tailed hawks and numerous other species of forest edge area birds.

3.3.3 RARE, THREATENED, AND ENDANGERED SPECIES

In compliance with the Endangered Species Act of 1973 (Public Law 93-205), information pertaining to federally- and state-listed rare, threatened and endangered species was collected through correspondence and coordination with the U.S. Fish and Wildlife Service (FWS) (Ratnaswamy, 2001) and the Maryland Department of Natural Resources; Forest, Wildlife and Heritage Service (Byrne, 2001). Correspondence and coordination with these agencies is included in Appendix B.

The FWS indicated that, except for the occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project area. Based on these findings, it was stated that no Biological Assessment or further Section 7 Consultation with the FWS was required.

Maryland's Wildlife and Heritage Service indicated that they have no records for federal or state rare, threatened or endangered plants or animals within the project site. However, a database search revealed that there are recent records for the State-endangered dense-flowered knotweed (*Polygonum densiflorum*) and for small bedstraw (*Galium trifidum*), a species with uncertain state status, known to occur within the vicinity of the project area.

The identification, ranking and protection of Maryland's rare species and natural areas are managed by the Wildlife and Heritage Division of the Maryland Department of Natural Resources. Much information pertaining to plant biology has been gained by staff biologists responsible for collecting plant data through correspondence with scientific experts, knowledgeable amateur naturalists, and the occasional funded research project.

A field survey was conducted on October 15, 2001 to confirm the presence or absence of habitat for the dense-flowered knotweed and small bedstraw, and search for the species if suitable habitat exists in the project area. Dense-flowered knotweed typically grows in wetlands containing shallow water. The only suitable habitat for dense-flowered knotweed within the project area was a small portion within Wetland WKS-B. However, no evidence of dense-flowered knotweed was identified during the field survey. Small bedstraw is found in moist, open woods and wood edges. The only suitable habitat for small bedstraw in the project area was within Wetland HF-B, located in the southeastern portion of the project area. A thorough search conducted within wetland HF-B identified a well established population of small bedstraw. Appendix F contains the Rare Plant Survey report detailing the site investigation for the two plant species.

3.4 CULTURAL RESOURCES

3.4.1 ARCHAEOLOGICAL RESOURCES & HISTORIC PROPERTIES

Cultural resources include both archaeological and historic resources. In March 1999, R. Christopher Goodwin & Associates, Inc., on behalf of the ACOE, Baltimore District, conducted a Phase I Architectural and Archaeological Investigations at the former Naval Communication Detachment-Cheltenham facility. The objectives of this project included:

1. The development and preliminary testing of an updated archaeological predictive model, and
2. Phase I architectural investigations.

The archaeological objectives were met through a series of disturbance studies that included systematic shovel testing of a sample of areas defined as No, Low, and High Probability to contain archaeological sites. The study also included research of archival data and the development of a revised predictive model.

Architectural investigations included a combination of archival research and field survey techniques. Study findings were applied to the National Register Criteria for Evaluation. Field survey included the assessment of 102 buildings and structures on site.

Archaeological Resources

Background research for archaeological resources involved personnel interviews, an examination of site files, a review of historical and archaeological literature, and disturbance tests.

Several archaeological surveys have been conducted in the vicinity of the site. A total of eight surveys have been recorded since 1978. From those surveys, a total of six archaeological sites were identified within a 2-mile radius of the Cheltenham facility. Following review by the Maryland Department of Housing and Community Development, most sites were removed from further consideration and action.

The archaeological investigation conducted within the approximate 232-acre Cheltenham facility was successful in updating the 1991 predictive model. Based on the findings of this investigation, the facility includes 37.93 acres of No Probability, 130.75 acres of Low Probability, and 63.65 acres of High Probability land. At the conclusion of the investigation, a total of 53.89 acres of High Probability lands remained to be tested.

One archaeological site was discovered in the project area. Site discovery included the unearthing of quartz and rhyolite flakes. Further testing did not identify additional artifacts. It was determined that this site did not contribute to the knowledge of the prehistory of the overall project area.

Based on the findings of the archaeological investigations, the Maryland Historical Trust (MHT), in a letter dated February 18, 1999, indicated that no additional archaeological investigation was warranted. According to personnel at the Maryland Historical Trust, the findings and conclusions presented in the February 18, 1999 letter remain valid; that is, no additional work for archaeological sites is required for this project site (see Appendix B).

Architectural Resources

In 1998, an evaluation of 102 buildings and other structures was conducted at the Naval Communication Detachment, Cheltenham for their National Register eligibility. Forty-four buildings were constructed between 1938 and 1945 and 58 were constructed after 1946. For the duration of the facility's operation, all buildings were associated with the Navy's communication program. The facility was originally commissioned in 1939 as a radio receiving station; the mission of the facility changed to one of an administration role during the Cold War.

In response to a recommendation by the MHT, and in response to the scheduled closure of the detachment facility, an intensive architectural evaluation of the entire complex in accordance with Guidelines for Completing the Maryland Inventory of Historic Properties Form and the National Register Program. The investigations comprised archival research and field survey of buildings within the project area. The Phase I Architectural Survey and Archaeological Investigations report stated the following:

> "Based on the results of the archival research and field survey, the U.S. Naval Radio Station, Cheltenham, does not appear to possess the qualities of significance for listing in the National Register of Historic Places under Criterion A for its association with World War II. The installation does not possess direct, important associations with the communications activities of World War II operations."

In their letter of February 18, 1999, the MHT concurred that the station "…does not possess significance for inclusion in the National Register of Historic Places under Criterion A or sufficient physical integrity under Criterion C. Therefore, further architectural investigations are not warranted." (See Appendix B).

Finally, under the Section 106 Determination of Effect, the MHT concluded that, based on the findings of the archaeological and architectural investigations, the federal surplus of the facility would have no effect on historic properties. Consequently, further consultation with the MHT for this parcel is not necessary.

During the investigation, a disturbance study and sampling regime was also conducted to test the revised model. Based on the findings of this investigation, the facility includes 37.93 acres of No Probability area in the core areas of the site. The study concludes that these areas have no potential to contain archaeological sites.

3.5 VISUAL QUALITY

3.5.1 WITHIN CENTER

Thirty-eight major buildings and facilities are noted in the 1985 NCU Master Plan Update as existing within the former NCDC, with many other smaller or structures present. Buildings were classified as being permanent or semi-permanent, with permanent structures designed to serve for at least 25 years. Semi-permanent buildings were designed to serve a specific purpose for a 5 to 24 years duration. (Temporary structures were characterized as serving for a period of less than 5 years.) The main buildings are an architectural mixture of Georgian Colonial revival style found on numerous United States military installations of the era between the world wars. Construction following the Second World War was more contemporary. Brick continued to be utilized in some of the more modern structures. Numerous large antenna arrays suspended from telephone poles were arranged throughout the site, mostly hidden from view by trees. These antennas and supports have been removed. Large stands of trees ring the main or central complex area and are present at the property's fenceline, blocking views offsite. Mature trees line Commo Road in the main complex. The site rises topographically from the gate at Skid pad towards the northern or main gate at Access Road, with an elevation drop-off to the west of Commo Road through the center of the site.

Many of the existing buildings have suffered some interior and exterior deterioration since the 1998 deactivation of the facility and cessation of maintenance activities. None of these buildings are eligible for inclusion on the National Register of Historic Places according to a previous study and confirmation from the Maryland Historic Trust.

3.5.2 EXTERNAL TO CENTER

The trees noted above also prevent unobstructed views into the site from beyond the property, except for areas to the east/southeast. The two water towers are somewhat more visible because of their height.

3.6 ACCESS AND TRAFFIC

3.6.1 DISCUSSION

Existing Conditions

The site is located in southern Prince George's County, approximately 5 ½ miles south of the Capital Beltway (I-95), and approximately 3 miles south of Andrews Air Force Base. While direct access is provided off of county collector roadways, several state arterial highways surround the site. The primary access into the site is provided off of Dangerfield Road. Dangerfield Road provides a direct connection to MD 223 to the north and access to MD 5 to the west via Surratts Road. A secondary access is provided to Commo Road at the southeast corner of the facility. Commo Road provides access to US 301 to the east via Frank Tippett Road.

Each of the county roadways is a two-lane facility, connecting to state highways at signalized intersections. MD 5 is a six-lane divided highway connecting to I-95 and Washington, DC to the north, and merging with US 301 to the south, providing access to southern Maryland. US 301 is a four-lane divided highway connecting with US 50 to the north, providing access to Upper Marlboro, Annapolis and other points north and east. MD 223 is a two-lane arterial that connects to MD 5 to the west and to MD 4 to the north.

Peak period traffic counts were conducted at seven (7) critical intersections between August 28th and September 20th, 2001. Existing traffic volumes are presented in Figures 11 and 12 for the AM and PM peak hours, respectively. The raw traffic data is included in the complete traffic report found in Appendix G. Capacity and level of service analyses were conducted at each location using the Critical Lane volume analysis technique. The capacity analysis worksheets are also provided in Appendix G. The seven intersections and resultant levels of service (LOS) are provided in Table 6.

TABLE 6
EXISTING CONDITIONS

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	v/c	LOS	v/c
MD 5 at Surratts Road	E	0.98	E	0.95
Surratts Road at Dangerfield Road	A	0.32	A	0.25
Dangerfield Road at Access Road	A	0.15	A	0.20
Dangerfield Road at MD 223	A	0.42	C	0.76
Frank Tippett Road at Skid pad	A	0.18	A	0.30
Frank Tippett Road at Surratts Road	A	0.46	A	0.44
Frank Tippett Road at US 301	B	0.64	D	0.88

LOS – Level of Service v/c – Volume-to-Capacity Ratio

Level of Service is defined as a qualitative measure of the operating conditions at any given intersection. It is a function of a number of factors including volume, geometry and traffic control. From the viewpoint of the driver, lower volumes provide higher levels of service, while higher volumes provide a lower level of service. The factors for measuring levels of service vary depending upon whether the intersection is signalized or unsignalized, but generally correspond to the following criteria. **Level of Service of A** describes operations with very low average delays per vehicle, accommodating traffic volumes up to 62% of capacity**. Level of Service of B** operations result in higher average delays, but progression remains very good. Traffic volumes under level of service of B cannot exceed 72% of capacity. **Level of Service of C** introduces still higher average delays that are becoming noticeable to the driver. Traffic volumes under level of service of C can be as high as 81% of capacity. Under **Level of Service of D**, the influence of congestion becomes more noticeable to the driver. The upper volume limit at level of service of D is approximately 91% of capacity. This is generally considered by most agencies as the highest acceptable level of service. The upper limit of **Level of Service of E** is defined as capacity and the resultant delays may be considered as unacceptable to many drivers. Traffic volumes at **Level of Service of F** exceed capacity, resulting in unacceptable delays for virtually all drivers traveling in the peak directions. The range of volume-to-capacity ratios for each level of service are summarized below:

Level of Service Criteria

Level of Service	Volume-to-Capacity Ratio
A	< 0.625
B	0.625 to 0.712
C	0.712 to 0.813
D	0.813 to 0.906
E	0.906 to 1.00
F	> 1.00

The Washington Metropolitan Area Transit Authority (WMATA), the Maryland Transit Administration (MTA) and Prince George's County operate bus services in the county. WMATA operates one Metrobus line along MD 5, beginning at MD 223 and running north. The MTA operates two commuter bus routes from southern Maryland to Washington, D.C., but there are no stops within the study area. The county operates two bus lines that run through the study area. The first route operates between the Branch Avenue Metro Station and the Southern Maryland Medical Center on Surratts Road. The second route operates between the Branch Avenue Metro Station and a Park & Ride Lot in Clinton. This route runs through the intersection of MD 223 and Dangerfield Road. There are no bus routes that run on Dangerfield Road or adjacent to the site.

Background Conditions

Background conditions generally consider regional traffic growth along arterial highways, the volume of traffic expected to be generated by approved development proximate to the site, and the affect of State and local capital improvement projects.

Based on historical traffic trends, regional growth along MD 5, US 301 and MD 223 is expected to be between 2% and 2½% per year to the design year of 2006. For the purpose of this analysis, we have assumed a 2% annual growth rate on US 301 and a 2½% annual growth rate on MD 5 and MD 223. For background growth along all other routes, we have assumed a 1% annual growth rate. The Maryland-National Capital Park and Planning Commission has provided land use data for several residential, retail and institutional developments that are expected to impact area roadways. Traffic volumes have been generated for each development and have been assigned to the roadway network as part of the background conditions. The developments are as follows:

- Cheltenham Park — 129 Detached Residential Units
- Holloway Estates — 60 detached Residential Units
- Transnational University — 900 Students
  250 Room Hotel/Conference Center
- Piscataway Creek Estates — 94 Detached Residential Units

In addition to traffic volume, background conditions also take into account the affect that state and local capital improvement projects may have on traffic patterns and intersection capacity. A review of both the State's Consolidated Transportation Program (CTP) and Prince George's County Capital Improvement's Program (CIP) indicates only one project funded for design and construction within the study area. Beginning in the summer of 2002, the State Highway Administration is scheduled to improve northbound MD 5 from south of Surratts Road to south of MD 223, by lengthening the existing third northbound through lane. While it is expected to improve traffic operations and safety, it does not increase intersection capacity.

A further review of the CTP indicates two highway projects currently in the planning phase, neither of which is funded for design or construction. The MD 5 Corridor Study examined alternatives to widen MD 5 to a 6-lane expressway and to upgrade access controls from north of I-95 to US 301, including a grade-separated interchange at Surratts Road. While much of the corridor has been upgraded, work on the southern section, i.e., south of MD 223, is on hold pending funding for design and construction.

Two other studies are underway by the MTA to examine the feasibility of transit improvements along MD 5 and US 301. Planning efforts are expected to continue through 2002 along US 301 and through 2005 along MD 5. Neither project is funded for design or construction.

Background traffic volumes are presented in Figures 13 and 14 for the AM and PM peak hours, respectively. Capacity and level of service analyses were conducted at each location using the Critical Lane Volume Analysis technique. The capacity analysis worksheets are provided in the transportation study report. The seven intersections and resultant levels of service are provided in Table 7.

TABLE 7
BACKGROUND CONDITIONS

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	v/c	LOS	V/c
MD 5 at Surratts Road	F	1.10	F	1.07
Surratts Road at Dangerfield Road	A	0.38	A	0.32
Dangerfield Road at Access Road	A	0.22	A	0.28
Dangerfield Road at MD 223	A	0.48	D	0.91
Frank Tippett Road at Skid pad	A	0.22	A	0.34
Frank Tippett Road at Surratts Road	A	0.50	A	0.51
Frank Tippett Road at US 301	B	0.71	E	0.98

LOS – Level of Service v/c – Volume-to-Capacity Ratio

3.7 UTILITY INFRASTRUCTURE

3.7.1 WATER

Two 100,000-gallon capacity water storage towers, two 350-foot deep wells, deep well pumps rated at 200 gpm at each tower, and gaseous chlorination stations constitute the former NCDC potable water system. Water distribution piping varies in diameter size from 1.5 inches to 10 inches. Numerous hydrants are also located throughout the site on this distribution system. Up to 612,000 gallons per day of fresh water was provided by this system during the previous site operations when over 300 personnel were assigned to the facility. Normal demand was 35,000 to 65,000 GPD. After the existing system is treated for corrosion using soda ash, this system's capacity to provide potable water would be evaluated. An alternate source of potable water, is the Washington Suburban Sanitary Commission's (WSSC) water supply system that serves Prince George's County. Should the existing system prove to be too antiquated for the intended purposes, the FLETC would investigate the viability of this alternative.

3.7.2 SANITARY SEWER

The site's sanitary system consists of gravity and force mains, two lift stations located in Buildings 1 and 31, and several septic tanks with drain fields. The FLETC would not utilize a septic system; the system associated with Building 64 would be abandoned and this building would be connected to the site's sanitary collection system as it is upgraded. All collected sanitary wastewater generated onsite is directed into the WSSC's system. Flows averaged approximately 50,000 GPD in the past. The WSSC was established in 1918 and provides potable water and sanitary wastewater treatment services to Montgomery and Prince George's Counties, MD, with certain cooperative agreements with the District of Columbia. Collected wastewater exits the FLETC site through an 8-inch main at the southeastern end of Commo Road. A metering station exists on a portion of the project area currently utilized by the Prince George's County Fire/Rescue Department for the combined flows from both sites, but FLETC intends to construct its own flow measuring flume near Building 31.

Stormwater is not combined with the sanitary flow at FLETC Cheltenham.

3.7.3 STORMWATER MANAGEMENT

Stormwater runoff from roofs and impervious surfaces is collected from the majority of the site north of Stone Court (housing circle located north of Redman Road) and directed towards the western edge of the property near the former pool site where it discharges into the existing stream and wetlands. Stormwater collected at the Stone Court housing area is conveyed south beneath Commo Road and discharges to the surface. In total, the site has approximately 12,000 feet of storm sewers, catch basins, inlet culverts, and drainage swales. Stormwater from Building 31 discharges into riprap-lined french drains. Water from this detention enters swales south of the Building 31 parking lot, and eventually flows past the Prince George's County Fire Training Academy, entering the wetlands area to the east.

The former NCDC held a National Pollutant Discharge Elimination System (NPDES) permit for stormwater management up until 1992, at which time the facility allowed the permit to expire.

3.7.4 ELECTRIC POWER AND COMMUNICATIONS

Electric power is provided to the site by the Potomac Electric and Power Company (PEPCO) via 13.2 kv overhead distribution from PEPCO's substation located on Surratts Road southwest of FLETC Cheltenham. Dual feeds are installed and both come from the Surratts Road substation via underground conduit buried along the site's Access Road. Power is further distributed within the project site at this voltage to any of eight transformers which step the power down to 480, 208, or 120 volts as required. Generally, power enters buildings at 208 volts and is further reduced to 120 volts within the building. The eight transformers installed range from 150 kva to 500 kva. A new substation would be required for the new firing range. Historically, monthly demand was less than 1200 kw prior to 1998. Standby emergency diesel-generators were previously installed to satisfy the majority of the site's power requirements during a PEPCO outage. These diesel-generators have been removed.

Small emergency generators would be installed at both guardhouses and the visitor and security building. No other emergency power generating capability would be provided.

Telephone service is provided via fiberoptic cable from Dangerfield Road onto the site.

3.7.5 HEATING PLANT

Previously, the Navy used an existing central heating plant to provide heated water to the central core buildings at the site. Three no. 2 fuel oil-fired hot water units, with a combined capacity of 32.5 MMBTUH, producing 350F pressurized heated water, served the heating demand of numerous core buildings located on two (North and South) distribution loops. Outlying buildings were heated by individual heating units. The plant is presently inoperative and the heating units have been removed. Current plans call for the FLETC to develop individual building heating systems and not utilize a centralized boiler system.

No utility-provided natural gas service is present on the site.

3.8 COMMUNITY CHARACTERISTICS

3.8.1 LAND USE AND PLANNING

The Maryland-National Capital Park and Planning Commission (MNCPPC) is a bi-county agency, created by the General Assembly of Maryland in 1927. The Commission's geographic authority extends to the great majority of Montgomery and Prince George's Counties: the Maryland-Washington Regional District (M-NCPPC planning jurisdiction) comprises 1,000 square miles (640,000 acres or 26,000 hectares), while the Metropolitan District (parks) comprises 919 square miles (590,000 ac. or 240,000 ha.), in the two counties. Subregion V includes the communities of Clinton, Tanglewood, Brandywine, Accokeek, Tippett, Moyaone-West Accokeek, Piscataway, Danville, and Cedarville, and the Naval Communications

Detachment Cheltenham (NCDC) in the southwest section of Prince George's County, containing approximately 88.5 square miles (57,000 ac. or 23,000 ha.).

Comprehensive planning in this area began with the 1964 *General Plan* for the Maryland-Washington Regional District. This document included detailed land use and density recommendations necessary for orderly growth of the area. The 1964 plan was followed by the 1974 *Master Plan* that included general policy guidelines for development – open space goals, diverse living styles and densities, industrial employment areas, and comprehensive design zones.

The 1982 *General Plan* established a foundation containing policies and guidelines as a basis for future plans. The 1982 Plan included a discussion of land use, economic development, transportation, public facilities, environment, and housing.

The 1993 *Master Plan* established goals, objectives, concepts, recommendations and guidelines for each of nine major elements: Living areas; commercial areas and activity centers; employment areas; circulation and transportation; environmental envelope; public facilities; parks, recreation and trails; historic preservation; and, sand and gravel resources.

According to the *1993 Master Plan*, the existing land use inventory for Subregion V includes approximately 40% (22,000 ac. or 9,000 ha.) developed and 60% (34,000 ac. or 14,000 ha.) undeveloped. The developed portion consists of Residential (9,500 ac. or 3800 ha.); Commercial (640 ac. or 250 ha.); Industrial (190 ac. or 76 ha.); Public/Quasi-Public, including parks and Federal installations (10,800 ac. or 4,400 ha.); and Other, including active sand & gravel and private open space (1,050 ac. or 430 ha.).

According to MNCPPC Community Planning personnel, the NCDC is not subject to zoning based on Federal government ownership (Appendix B).

The National Capital Planning Commission (NCPC) carries out Federal facilities planning in the Capital Region through the Comprehensive Plan for the National Capital. Among the Federal planning policies are:

- Consideration should be given first to the use of existing under-developed Federal Facilities in selecting new locations or relocating Federal activities before additional lands are purchased and prior to leasing space.
- Historic Federal Facilities should be given priority consideration for use or adapted for reuse in providing space for Federal activities.

The 232-acre project area is located in the northeast portion of the Prince George's County's Subregion V Planning Area. Since the early 1980s, the region has undergone a transition from a rural to a suburban community. Included in this region are large tracts of agricultural and wooded lots, scattered single-family subdivisions and small towns. Commercially zoned land in the region is scattered along major thoroughfares and, over the years, has been consolidated from sporadic commercial strips rather than compact and unified developments.

Adjacent land use includes approximately 124 acres to the west that is owned by the Department of Energy (DOE) for the operation of a 24-hour nationwide high frequency mobile radio relay station. There are no permanent residents on the property; the fully automatic system requires only periodic maintenance. DOE has a right-of-way through the northern portion of the former NCDC property for access to their facilities. Approximately 192 acres of land to the east and south of the former NCDC is currently owned by Prince George's County and utilized as a wetland park.

3.8.2 POPULATION/HOUSING/ECONOMY/EMPLOYMENT

The Washington, DC – Baltimore, MD consolidated metropolitan statistical area is the fourth largest urban area in the United States and Prince George's County is the second largest county in Maryland. Table 8 shows the changes in population for PG and its surrounding political divisions. Population increased in Prince George's County by approximately 9.9% between 1990-2000, while Subregion V showed a 15% increase.

TABLE 8
POPULATION CHANGE, 1990-2000

	Total Pop.	Total Pop.	Numerical	Percentage
District of Columbia	606,900	572,059	-34,841	-5.7%
Fairfax Co., VA	818,584	969,749	151,165	18.5%
Anne Arundel Co., MD	427,239	489,656	62,417	14.6%
Calvert Co., MD	51,372	74,563	23,191	45.1%
Charles Co., MD	101,154	120,546	19,392	19.2%
Prince George's Co., MD	729,268	801,515	72,247	9.9%
Subregion V	*36,825	*42,358	5,533	15.0%

Note: *Forecast estimates, M-NCPPC, 1988.
Source: U.S. Census Bureau, 2001.

Minority populations showed substantial increases in all areas of the region, including Prince George's County. According to the 2000 Census, a notable decline in the white population coupled with large increases in black and other minority populations easily places minorities in the majority of Prince George's County (73% Black and Other Minority vs. 27% White). Only the District of Columbia has similar statistics.

TABLE 9
POPULATION BY RACE, 1990-2000

	White			Black			Other Minority		
	1990 (% of total)	2000 (% of total)	Numeric change %	1990 (% of total)	2000 (% of total)	Numeric change %	1990 (% of total)	2000 (% of total)	Numeric change %
District of Columbia	179,667 (29.6%)	176,101 (30.8%)	-2.0%	399,604 (65.8)	343,312 (60.0%)	-14.1%	27,629 (4.6%)	52,646 (9.2%)	90.5%
Farifax Co., VA	665,399 (81.3%)	677,904 (70.0%)	1.9%	63,325 (7.7%)	83,098 (8.5%)	31.2%	89,860 (11.0%)	208,747 (21.5%)	132.3%
Anne Arundel Co., MD	365,953 (85.7%)	397,789 (81.2%)	8.7%	50,525 (11.8%)	66,428 (13.6%)	31.5%	10,761 (2.5%)	25,439 (5.2%)	136.4%
Calvert Co., MD	42,825 (83.4%)	62,578 (83.9%)	46.1%	8,046 (15.6%)	9,773 (13.1%)	21.5%	591 (1.0%)	2,212 (3.0%)	274.3%
Charles Co., MD	80,234 (79.3%)	82,587 (68.5%)	2.9%	18,419 (18.2%)	31,411 (26.1%)	70.5%	2,501 (2.5%)	6,548 (5.4%)	161.8%
Pr. George's Co., MD	314,616 (43.1%)	216,729 (27.0%)	-31.1%	369,791 (50.7%)	502,550 (62.7%)	35.9%	44,861 (6.2%)	82,236 (10.3%)	83.3%

Source: U.S. Census Bureau, 2001

Total housing units increased during the period 1990-2000 as shown in the table below with a commensurate change in the percentage of occupied housing units. Vacant housing units increased during the same period in both real numbers and as a percentage.

TABLE 10
HOUSING OCCUPANCY, PRINCE GEORGE'S COUNTY, MD, 1990-2000

	1990 Census	2000 Census	% Change
Total Housing Units	270,090	302,378	11.9%
Occupied Housing Units	258,011	286,610	11.1%
% Occupied	95.5%	94.8%	-0.7%
Vacant Housing Units	12,079	15,768	3,689
% Vacant	4.4%	5.2%	0.8%

Source: U.S. Census Bureau, 2001.

Table 11, Per Capita Personal Income, shows positive growth rates for all areas surrounding the Cheltenham facility. Prince George's County growth rate was moderate, although below the average for Maryland and the U.S. Inflation during the 1990s was very low (1-2%).

Table 12, Total Personal Income, shows a moderate average annual growth rate for Prince George's County.

TABLE 11
PER CAPITA PERSONAL INCOME, 1989-1999

	1989	1999	Average Annual Growth Rate
District of Columbia	$24,311	$39,130	4.9%
Fairfax Co., VA	$29,474	$47,241	4.8%
Anne Arundel Co., MD	$21,694	$32,607	4.2%
Calvert Co., MD	$21,172	$28,888	3.2%
Charles Co., MD	$19,398	$27,701	3.6%
Prince George's Co., MD	$21,092	$29,547	3.4%
Maryland	$22,001	$32,517	4.0%
U.S.			4.4%

Source: U.S. Department of Commerce, Bureau of Economic Analysis, 2001.

TABLE 12
TOTAL PERSONAL INCOME, 1989-1999**

	1989*	1999*	Average Annual Growth Rate
District of Columbia	$15,174,388	$20,308,355	3.0%
Fairfax Co., VA	$24,757,764	$46,124,232	6.4%
Anne Arundel Co., MD	$9,188,724	$15,666,896	5.5%
Calvert Co., MD	$1,044,860	$2,130,434	7.4%
Charles Co., MD	$1,919,297	$3,350,367	5.7%
Prince George's Co., MD	$15,176,568	$23,099,484	4.3%
Maryland	$104,005,033	$168,167,999	4.9%
U.S.			5.4%

Notes:
* $1,000s
** Components of Total Personal Income: earnings (wage and salary, other labor income, and proprietors' income); dividends, interest, and rent; and transfer payments.
Source: U.S. Department of Commerce, Bureau of Economic Analysis, 2001.

The six year trend (1995-2000) of labor force statistics in Table 13 below shows Prince George's County unemployment rate declining and consistently equal to or below the rate for the State of Maryland.

Real estate professionals have indicated that the overall housing market in Prince George's County is strong. There was a consensus among four real estate agents that the area is a seller's market – demand exceeds supply; most home sales are getting two or three purchase offers. According to the agents, Prince George's County has relatively affordable housing prices compared with Anne Arundel and Calvert Counties in Maryland, and Fairfax County, Virginia. Starting prices are in the $150K-$200K in Prince George's County versus $300K and up in the others. The available housing inventory is low, but there are substantial new residential developments underway. They also identified current low interest rates fueling home sales. One agent identified Route 301, located 1.5 miles (2.4 km) southeast of the NCDC, as a high growth corridor.

TABLE 13
LABOR FORCE STATISTICS

	1995			1996			1997			1998			1999			2000		
	Empl.	*Unempl.*	*Rate*	*Empl.*	*Unempl.*	*Rate*	*Empl.*	*Unempl.*	*Rate*	*Empl.*	*Unempl.*	*Rate*	*Empl.*	*Unempl.*	*Rate*	*Empl.*	*Unempl.*	*Rate*
District of Columbia (rounded)	258,800	25,300	8.9	247,800	23,100	8.5	237,200	20,400	7.9	244,900	23,700	8.8	264,400	17,700	6.3	262,800	16,100	5.8
Fairfax Co., VA	503,184	14,749	2.8	490,318	13,630	2.7	493,989	11,469	2.3	514,911	8,305	1.6	527,132	8,435	1.6	554,916	6,590	1.2
Anne Arundel Co., MD	236,072	9,964	4.0	244,167	10,174	4.0	245,457	9,980	3.9	244,431	8,796	3.5	250,364	7,225	2.8	251,197	7,476	2.9
Calvert Co., MD	32,861	1,393	4.1	34,540	1,440	4.0	35,059	1,336	3.7	35,775	1,330	3.6	37,093	983	2.6	37,558	1,013	2.6
Charles Co., MD	56,630	2,259	3.8	58,228	2,076	3.4	58,047	2,414	4.0	58,632	1,953	3.2	60,595	1,552	2.5	61,356	1,616	2.6
Prince George's Co., MD	423,894	21,454	4.8	430,291	21,238	4.7	426,060	22,509	5.0	420,311	19,305	4.4	426,684	15,565	3.5	432,037	17,436	3.9
State of Maryland	2,576,688	138,406	5.1	2,651,542	136,246	4.9	2,640,878	141,320	5.1	2,625,286	125,175	4.6	2,667,735	97,909	3.5	2,696,543	108,284	3.9

Source: Maryland Dept. of Labor (2001); Washington, D.C., Dept. of Employment Services (2001); Virginia Employment Commission, Labor Market and Demographic Analysis (2001).

3.8.3 COMMUNITY INSTITUTIONS/SERVICES

The 1993 Master Plan offers an analysis of public infrastructure and services, including schools, libraries, police and fire protection, medical facilities, and water, sewer, and stormwater management.

According to the plan, there will be a need for one new elementary school by the year 2010 and an additional nine elementary schools, one middle school, and one high school in order to serve the development proposed by the plan.

The Plan specifically recommends three new elementary schools for the Clinton/Tippett community. The suggested sites include the already acquired Mary Catherine Estates, the undeveloped Cheltenham Elementary School and an area southeast of the Surratts-Clinton Branch Library. A middle school is also recommended for the Clinton/ Tippett area on the already acquired 20-acre Nothey Farm site.

The existing medical facilities, which includes the Southern Maryland Hospital Center located less than one-half mile west of the proposed facility, are expected to satisfy the projected need for public health care services.

Drinking water is provided to the area by the WSSC and is transported via water mains, pumps, valves and storage tanks from filtration plants in Montgomery and northern Prince George's Counties. The Plan identified future inadequate water system pressure for various segments of the community. The "Facility Plan for Water Supply to Prince George's High Zones" is currently addressing this anticipated demand. Initial estimates projected 5.4 million gallons per day would be needed by 2020. Based on the projections, potential water storage sites will be identified by the WSSC.

The wastewater generated in the region is treated at either the Mattawoman or Piscataway Wastewater Treatment Plants. The projected needs through 2010 should be sufficiently served by these two facilities; however an allocation policy should be implemented that would reserve 50 percent of the total capacity in the Mattawoman Basin for potential commercial, industrial and economic development needs. After the year 2010, future services needs must be identified.

Stormwater management in the area has emphasized water quality and an increase in watershed and flood management planning. The Master Plan identified 29 water quality basins, three flood-control and water quality ponds, one water quality/extended detention pond and one existing flood control and water quality pond. The Plan recommended watershed studies be continuously updated and current on-site controls be evaluated to avoid increased flooding.

3.8.4 FIRE/EMERGENCY RESPONSE/EDUCATIONAL SERVICES

As the region grows, the service calls for the fire and rescue teams would increase. By the year 2010, medic calls for the region are anticipated to increase by 52.5 percent. Station 25 (Clinton), located approximately 1½ miles northwest of the proposed facility, currently has a medic unit.

The Master Plan recommended that Station 25 remain as a full service fire and rescue/medic unit at its present location.

The plan projects 39 police officers are necessary to serve the region by the year 2010 with an estimated population of 54,000. With the anticipated buildout, the population is expected to reach 120,000. The community will then need 88 officers to serve the area. The current building that houses the police station has a capacity for 268 officers. More specifically, the District V (Clinton) station has adequate space to meet the demand for 88 officers. The Plan projects adequate facility space and officers will be available to meet the growth of the region with the anticipated buildout.

3.8.5 ENVIRONMENTAL JUSTICE

Under Executive Order 12898 of February 11, 1994, titled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Federal agencies have a responsibility to carry out its programs, policies and activities that substantially affect the human environment, in a manner that precludes discrimination under such programs, policies and activities, due to race, color, or national origin. Further, the Maryland Advisory Council on Environmental Justice (MACEJ) was established to examine issues related to environmental justice in Maryland. The MACEJ was tasked with making recommendations on environmental policy, community concerns and participation, decision-making processes to include diverse perspectives, enforcement of laws, and highlighting discriminatory laws. Through the work of MACEJ, the following definition of environmental justice in Maryland was developed:

> "Environmental Justice (EJ) means equal protection from environmental and public health hazards for all people regardless of race, income, culture, and social class. Environmental justice also means equal access to socioeconomic resources so that all people can provide for their livelihood and health. Additionally, environmental justice means the fair treatment and meaningful involvement of all people regardless or race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people including racial, ethnic or socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, land-use planning and zoning, municipal and commercial operations or the execution of federal, state, local, and municipal program and policies."

The proposed project would be located entirely on federally owned property formerly utilized as the NCDC. According to the MNCPPC, much of the land use surrounding the NCDC is detached single-family residential. Generally, the income level of land-owners in the vicinity of the proposed FLETC site is middle to upper middle class. Furthermore, there are no concentrations of low income and/or minority populations in this area. MNCPPC confirmed there are no environmental justice issues under E.O. 12898 or the Maryland General Assembly's House Bill 1350 to be addressed by the proposed project.

4. ENVIRONMENTAL CONSEQUENCES

This chapter identifies and analyzes the probable effects on the natural and man-made environment that would be anticipated if Alternative 1, 2, 3, or 4 would be implemented. Where potential environmental impacts are identified, specific mitigation measures are described. The purpose of mitigation is to reduce the undesirable effects of an action on the environment. Five means of mitigation available for consideration are avoidance of the impact, limitation of the action, restoration of the environment, reduction over time by preservation/maintenance, and replacement of resources.

The various environmental resources discussed are presented in the same order as found in Chapter 3.

4.1 ALTERNATIVE 1 – NO ACTION

4.1.1 PHYSICAL RESOURCES

A. Climate

1. Impacts

None of the alternatives under consideration for this project would have any impact to the climate or meteorology of the project area.

2. Mitigation

No impacts to the climate or meteorology are expected to occur as a result of this project, therefore, no mitigative measures would be required.

B. Soils, Geology, and Topography

Soils

1. Impacts

No impacts to soils would occur due to the No Action Alternative.

2. Mitigation

No impacts are expected by the No Action Alternative; therefore, no mitigation would be required.

Geology

1. Impacts

No impacts to site geology would occur for the No Action Alternative.

2. Mitigation

No mitigation would be required for the No Action Alternative

Topography

1. Impacts

No impacts to site topography would occur for the No Action Alternative.

2. Mitigation

No mitigation would be required for the No Action Alternative.

C. Air Quality

1. Impacts

No impacts to ambient air quality would occur at Cheltenham for the No Action alternative.

2. Mitigation

As no additional ambient air quality impacts would be possible with this alternative, no mitigation measures would be necessary.

D. Noise

1. Impacts

Under the No Action Alternative, the former NCDC in Cheltenham would remain unoccupied. As such, the facility would not generate noise levels that would be in excess of the Prince George's County Noise Ordinance.

2. Mitigation

No mitigation would be required for the No Action Alternative.

E. Hazardous Materials/Hazardous Waste

1. Impacts

Under the No Action Alternative, the FLETC training facility would not be constructed at the former NCDC; therefore, under this scenario, there would be no waste generation at the facility.

2. Mitigation

Under this Alternative, there would be no requirement to conduct asbestos and lead based paint abatement programs.

4.1.2 WATER RESOURCES

A. Surface Waters

1. Impacts

Under the No Action Alternative, there would be no adverse impacts to project area surface waters (e.g., streams and drainageways) or associated aquatic biota within those surface waters.

2. Mitigation

No mitigation would be required under the No Action Alternative.

B. Floodplains

1. Impacts

There would be no adverse impacts to project area floodplains under the No Action Alternative.

2. Mitigation

The No Action Alternative would not increase the 100-year floodplain elevation and therefore no mitigation would be required under this Alternative.

C. Wetlands

1. Impacts

Under the No Action Alternative, present conditions at the site would continue. There are no impacts to wetlands under this scenario.

2. Mitigation

No wetland mitigation would be required under the No Action Alternative.

D. Groundwater Quality

1. Impacts

Presently, local groundwater quality is not impacted by the former NCDC facility. Under the No Action Alternative, the facility would remain inactive and would therefore pose no additional adverse impacts to area groundwater quality.

2. Mitigation

No mitigation would be required under the No Action Alternative.

4.1.3 BIOLOGICAL RESOURCES

A. Vegetation

1. Impacts

There would be no clearing and grubbing of site vegetation required under the No Action Alternative. Land use would remain in its current form. Therefore, there would be no impacts to project area vegetative communities under the No Action Alternative.

2. Mitigation

No mitigation would be required under the No Action Alternative.

B. Wildlife

1. Impacts

Since there would be no loss of vegetation or aquatic habitat under this Alternative, there would be no resultant adverse impacts to project area or transient wildlife under the No Action Alternative.

2. Mitigation

The No Action Alternative is not expected to cause any impacts to habitat and wildlife resources, therefore, no mitigation of impacts would be required.

C. Rare, Threatened, and Endangered Species

1. Impacts

Under the No Action Alternative, there would be no loss of habitat or wildlife at the site, therefore, there would be no adverse impacts to sensitive species potentially found within the project area.

2. Mitigation

Under the No Action Alternative, there would be no requirement for mitigation of impacts to sensitive species.

4.1.4 CULTURAL RESOURCES

A. Archeological Resources

1. Impacts

The No Action Alternative would have no impact on archaeological resources.

2. Mitigation

In the absence of impacts, there would be no requirement for mitigation measures under this Alternative.

B. Historic Properties

1. Impacts

The No Action Alternative would have no impact on historic properties within the project area.

2. Mitigation

Under this Alternative, there would be no requirement for mitigation measures.

4.1.5 VISUAL QUALITY

A. Within Center

No impacts to the site viewsheds within the Cheltenham facility would occur.

B. External to Center

No offsite impacts to the views of the facility would occur for this alternative.

4.1.6 ACCESS AND TRAFFIC

A. Future Conditions

1. Impacts

Under the No Action Alternative, the facility would remain inactive. Outside of the occasional visitor to the site (unrelated to any FLETC operation), there would be no impacts from traffic in the areas and neighborhoods surrounding the facility.

2. Mitigation

The No Action Alternative would not require any traffic mitigation measures.

4.1.7 UTILITY INFRASTRUCTURE

A. Water

1. Impacts

No impacts to the existing potable water supply at the Cheltenham site would occur due to the No Action Alternative.

2. Mitigation

No mitigation efforts are required for this alternative because no improvements or alterations in the existing system are required.

B. Sanitary Sewer

1. Impacts

No increases or other impacts on the existing sanitary sewer system would occur at Cheltenham for this alternative.

2. Mitigation

No mitigation measures are required for this alternative.

C. Stormwater Management

1. Impacts

No improvements or changes to the existing stormwater management system or practices at Cheltenham would be necessary for this No Action Alternative.

2. Mitigation

No mitigation measures would be required for this alternative for the existing stormwater management systems.

D. Electric Power and Communications

1. Impacts

The No Build Alternative would precipitate no additional power or communications requirements.

2. Mitigation

No mitigation measures would be required for this alternative.

4.1.8 COMMUNITY CHARACTERISTICS

A. Land Use and Planning

1. Impacts

The No Action Alternative would have no effect on land uses and planning activities. Community planning for all areas surrounding the NCDC by the MNCPPC would continue, as would private development.

2. Mitigation

There would be no mitigation requirements under the No Action Alternative.

B. Population/Housing/Economy/Employment

1. Impacts

The No Action Alternative would have no effect on population, housing, economy, or employment. The statistics show this area is healthy in terms of population growth, development, jobs, and economy.

2. Mitigation

Under the No Action Alternative, there would be no mitigation requirements for impacts to the population, housing, economy, or employment.

C. Community Institutions/Services

1. Impacts

The No Action Alternative would have an effect on Community Institutions or Services. Part of the proposed action is a transfer of ownership of the Prince George's County Fire/Rescue Training Academy located at the southeastern portion of the property. The County is currently leasing the property from the FLETC. The No Action Alternative would require the County to continue monthly lease payments to the FLETC for use of this land.

2. Mitigation

Under the No Action Alternative, the federal Government may review other available options to transfer ownership of the Prince George's County Fire/Rescue Training Academy to the County for their exclusive use.

D. Fire/Emergency Response

1. Impacts

Under the No Action Alternative, the former NCDC complex would remain vacant for the foreseeable future. Concerns from area residents have indicated that, in the absence of proper security, homeless individuals have utilized site buildings. There is an increased fire and accident potential under these unsafe circumstances that would require periodic responsiveness from the local fire and emergency crews. In the event of a simultaneous fire or traffic emergency, the potential exists for emergency response times and crew availability to be compromised.

2. Mitigation

If the facility were not to be utilized by the FLETC, then additional security measures should be investigated and installed so that persons could no longer utilize site buildings illegally, thereby reducing the risk of fire and/or injury.

E. Environmental Justice

1. Impacts

The No Action Alternative would have no effect on Environmental Justice issues.

2. Mitigation

There would be no mitigation requirements under the No Action Alternative.

4.2 ALTERNATIVE 2 – PROPOSED ACTION

4.2.1 PHYSICAL RESOURCES

A. Climate

1. Impacts

Implementation of this alternative would have no impact on the climate or meteorology of the project area.

2. Mitigation

No impacts to the climate or meteorology would be expected to occur as a result of this project, therefore no mitigative measures would be required.

B. Soils, Geology, and Topography

Soils

1. Impacts

The greatest potential for impacts to soils within the project area would be through erosion. Construction activities would result in the disturbance of vegetation and alteration of existing soils conditions. Several construction activities would contribute to erosion within the project area. These include clearing and grubbing, creation of soil and other material stockpiles, cut and fill, and fugitive dust. With these activities, the potential impact to streams and wetlands would consist of physical and ecological damages due to sedimentation over time.

A detailed soil boring and subsurface investigative program would be undertaken to assess the suitability of the variable characteristics of the soils, slope stability, etc. Specific impacts would be addressed during the final design phase of the project. A review of the Prince George's County Soil Survey (1967) indicated that soils within the project area have slight to severe limitations for construction of buildings two stories or less. The majority of proposed buildings would be

constructed in soils of the Beltsville series. The Beltsville series consists of moderately well drained soils that are underlain by a very compact fragipan in the lower subsoil. The fragipan in this series is very slowly permeable. Consequently, these soils have a water table that is temporarily perched above the water table in wet seasons. The Prince George's County Soil Survey further states that construction in these soils can result in impeded drainage around foundations.

2. Mitigation

Based on a review of project requirements relative to the volume of soil needed to cut and balance across the site, it is apparent that a well-planned and implemented erosion and sediment control plan would be critical to protect the surrounding environment from unnecessary damage during construction. The project area is located within the Chesapeake Bay Critical Area, as described in the Chesapeake Bay Program 2000. Consequently, construction activities within the project area must conform to the requirements of the Chesapeake Bay Program relative to no net loading of non-point source pollutants in surface waters. The following mitigation measures must be instituted, in combination, during the construction phases of the project:

- Protect existing vegetation and ground cover as much as possible.
- Phased construction to limit the amount of cleared area at any one time.
- Application of comprehensive erosion and sediment pollution control measures.

Strict enforcement of the erosion and sediment control measures specified by State of Maryland regulations would be necessary in order to minimize adverse impacts of the construction activities. Erosion and sediment control measures may include the following, separately or in combination:

- Temporary and permanent seeding
- Channel linings and rock slope protection
- Energy dissipaters
- Silt barrier fencing
- Sediment ponds and traps
- Temporary diversion berms and ditches

The FLETC would be required to prepare a detailed Erosion and Sediment Control Plan that incorporates some or all of these measures for submission, review and concurrence by MDE. Further, an NPDES permit for construction activities would be required prior to any earthmoving activities.

Geology

1. Impacts

Since building foundations are expected to be shallow in depth (i.e., no more than 36 inches), no environmental impact on local bedrock geology is anticipated. All excavations and earthwork activities would likely only involve soils. It is not anticipated that blasting would occur within the project area. In order to characterize site geology within the footprints of the various buildings, a detailed geologic boring program would be employed. Boring test results would be utilized to assess slope stability, rock hardness, and foundation requirements.

2. Mitigation

Under this alternative, the design of both cut and fill slopes would be completed during final design and after the detailed geotechnical borings and analysis have been completed. If building or new roadbed construction is to occur within a rock strata particularly susceptible to failure, the design team's geotechnical engineers would design slopes to minimize the danger of slope failure.

Based on preliminary design considerations relative to depth of foundations, however, it is anticipated that there would be no impacts to project area bedrock geology, and as such, there would be no mitigation requirements.

Topography

1. Impacts

The location of the Proposed Action is primarily in an upland area with gentle to moderate slopes. Under this alternative, construction of some component of the DMURC would be conducted in low-lying areas of the site, adjacent to wetlands and streams. Generally, construction activities within the project area would result in impacts to site topography through grading, cuts, fills, and landscaping activities. While construction of the FTF would result in minimal impacts to site topography, construction of the DMURC and associated structures would result in more substantial impacts. It is likely that considerable fill material would be required between topographic ridges in the southwestern portion of the project area in order to control slopes and meet the driving range design criteria (i.e., comparatively level driving course with wide, gently-sloping shoulders). The angle of cuts and fills, and the extent of the slope limits would be determined during the final design phase of the project.

2. Mitigation

Despite the alterations in site topography, especially within the western and southwestern portion of the project area, no notable impacts are expected. The design would incorporate erosion and sediment pollution control measures to protect streams and wetlands during and after construction. Measures would likely include, but not be limited to, immediate stabilization of slopes with matting and plantings of appropriate vegetation, drainage controls, and minimizing constructed slopes as much possible.

C. Air Quality

1. Impacts

Implementation of the Alternative 2 Preferred Alternative would include the installation of several small hot water heaters fired by No. 2 fuel oil. Each unit is anticipated to be rated at more than one million British Thermal Units per hour heat input, qualifying them for coverage by a permit to construct/permit to operate issued by the MDE, Air & Radiation Management Administration. (COMAR 26.11.02.09). Annual fuel oil consumption is predicted to be less than 50,000 gallons, resulting in small emissions increases in the region. Three small gasoline-powered emergency power generators would be installed, one at each guardhouse, and the third at the visitor and security building. These sources would be utilized only in case of a power outage, and are anticipated to be exempt from any permit to construct requirements (COMAR 26.11.02.10) because of their low potential emissions and few hours of operation annually.

Use of lead bullet ammunition in the totally-enclosed FTF will generate expended lead projectiles and lead dust. No incinerators or other stationary air pollutant sources would be installed under this alternative.

Some fugitive particulate emissions would result from demolition and construction activities, as buildings are razed, modified, or constructed, from use of equipment, removal of debris, site preparation activities, and/or delivery of new materials and equipment. Gaseous emissions would result from internal combustion engine operation for construction vehicles such as dump trucks, excavators, air compressors, and from delivery vehicles.

Chapter 07 of the MDE air quality regulations addresses open burning use as a forest resource management practice. The FLETC may utilize this practice for vegetation control and better natural resource management of the site. Application must be made to the Prince George's County Department of Environmental Resources which has been delegated the authority by MDE for open fires' permits within the county. Note that open fires are not allowed within Prince George's County from June 1 through August 31 in order not to exacerbate

the ozone levels in the metropolitan Washington, DC area during a period when ozone is at its highest annual concentrations.

2. Mitigation

Construction-related emissions would be short term. Use of street sweepers and/or water trucks with spray bars by the contractors to remove any soils or materials falling on the paved roads within the site would minimize the fugitive particulate emissions. Watering of unpaved roads would also minimize dust creation. Gaseous emissions from internal combustion engines would be minimized by the requirement that delivery vehicles do not sit with engines idling while waiting to unload. Also, construction equipment such as engine-driven air compressors and portable generators would not be permitted to idle when not being used.

Potential emissions from the various small hot water heaters to be installed would be minimized by good maintenance practices that include annual adjustment and cleaning of each unit. These heaters are similar to home heaters, and the number of buildings requiring heat are greatly reduced from the previous Navy operations. Annual total emissions are well below any action criteria associated with purchase of emission reduction credits or other, more involved permitting efforts. Permits to construct and operate these emission sources would be obtained from the MDE.

Emissions from firearms training within the environmentally secure facility would be controlled, especially the lead-bearing particulates, by a high efficiency particulate filter (HEPA) which would filter all exhaust air leaving the facility. Particulates generated during the operation of the bullet recovery conveyor and containerization system would also be filtered by this HEPA unit. Dust recovered during periodic vacuuming of the facility, especially the bullet trap, would be similarly filtered. If emissions of pollutants are less than one ton per year per pollutant, MDE air quality regulations do not require permits to construct or operate a source. The need for permits for the FTF and its control device will be investigated.

Onsite vehicle emissions of nitrogen oxides (NOx) and volatile organic compounds (VOC), from both staff and student commuters, on an annual basis, would be similar to the emissions at the facility when operated by the Navy since the total number of persons onsite is similar. Driving range operations would result in additional mobile source emissions. All DMURC vehicles would be equipped with engines that comply with U.S. Environmental Protection Agency emission standards.

D. Noise

1. Impacts

The Study

Acoustical levels were measured at locations around the proposed FLETC site in Cheltenham, Maryland and of training events at the existing FLETC facility in Glynco, Georgia. In order to determine the magnitude of sounds that would be generated at the Cheltenham facility during similar training exercises, data from the Glynco site were used in computer models. A comparison was then made between the computer model findings, existing noise levels recorded in the surrounding Cheltenham community, and the requirements of the Prince George's County Noise Ordinance.

Methodology

Long- and short-term acoustical measurements were performed within the residential neighborhoods surrounding the Cheltenham facility. Short-term sound levels of specific acoustical events and long-term average sound levels of all events that occurred at selected sites were collected in September 2001. The study also measured acoustical levels generated during training exercises at the FLETC Georgia facility to document the magnitude of the proposed activities at Cheltenham. Computer models were then constructed, into which noise data collected at the FLETC's Glynco facility were introduced. Specific training exercise data from Georgia were applied to the proposed Cheltenham project area. Data in the computer model were influenced by distances, topography, and vegetative cover between the proposed activities and the property lines of the facility. The results of the computer model were then compared with the existing noise levels within the community and with the requirements of the local noise ordinance. Comparisons were conducted in order to determine if acoustic impacts would occur during normal training exercises at the proposed FLETC Cheltenham facility. Finally, mitigation measures were developed to ensure that sound emanating from the facility was minimized.

Existing Noise Levels

Acoustic findings were compared to Maryland's Title 26 Department of the Environment, Subtitle 02 Occupational, Industrial and Residential Hazards, Chapter 03 Control of Noise from the Annotated Code of Maryland. Specifically, the ordinance requires that noise originating from an industrial or commercial setting must be equal to or lower than 65 dBA when it enters a residential property during the daytime hours and less than or equal to 55 dBA during nighttime hours. The ordinance also requires that a Day-Night Average Sound Level (LDN) of 55 dBA for residential properties be achieved. None of the existing LDN's measured as part of the survey reached these levels.

Of particular note, the noise ordinance does not require that peak sound levels be measured nor does it require that the peak levels meet noise ordinance limits. The survey determined that peak sound levels from the driver training range, while periodically audible above ambient noise, would be below 65 dBA at distances of 2,500 feet or greater.

One of the measurement endpoints involved identifying distances from the FLETC property lines at which certain training activities can be sited and not violate current noise ordinances. Initially, sound measurements were assessed at increasing distances for each of selected training exercise. It was found that the average sound levels for all activities were reduced to less than 65 dBA within 250 feet to 500 feet from the source (e.g., firearms training activities).

It was found that night time sounds in the vicinity of the proposed FLETC facility are dominated by insects. In fact, insect sounds were louder than most of the ambient sounds during the daylight hours.

Daytime ambient sounds were dominated by spikes or peak noises contributed by traffic and planes flying overhead. Typical to most residential areas, spikes occurred with passing school buses, garbage trucks, delivery trucks, lawn-cutting equipment, construction traffic, and wood chippers.

For more detailed discussions, findings, conclusions, and recommendations, please refer to Appendix C for the complete report entitled Acoustic Survey and Impact Analysis Report for the Proposed Federal Law Enforcement Training Center, prepared by Siebein Associates, Inc. (October 2001).

Construction activities for the proposed action would create temporary noise impacts. The nearest locations likely impacted by this noise would be residential areas to the north and southwest of the project area. Mixed deciduous forest and conifer stands define the perimeter of the facility. The distance from the acoustical source, coupled with intervening vegetation, is likely to minimize noise from clearing and construction activities.

When in operation, the proposed action would generate noise from automobiles used during training exercises at the DMURC. Noise impacts would also be generated from cars entering and exiting the site during normal working hours. Finally, minimal noise would be generated during firearms training activities at the facility.

2. Mitigation

Noise sensitive receptors were analyzed for potential acoustical impacts during training activities at the proposed facility. Sound levels were compared to the levels allowed in an existing State of Maryland noise ordinance. The noise ordinance requires that noise levels not exceed 65 dBA during daytime hours and 55 dBA during nighttime hours. The acoustics study included an assessment of distances from the property lines at which certain training activities can be sited and not violate current noise ordinances. Sirens used during training would be audible only within the individual vehicles; no external sirens that could be heard beyond the FLETC property would be used.

The FTFs construction mass, i.e., exterior concrete and interior masonry and concrete walls, would serve to reduce noise from firearms training activities. Additional sound deadening materials such as textrum panels mounted on the range ceiling and foam acoustical panels would be employed to sound-deaden hard surfaces such as the safety ceiling. Acoustical weather stripping would be used at all doors.

The proposed location of the DMURC in this alternative places it away from the most congested residential areas to the north of the facility. Comparisons indicated that distance, as measured from the source of the noise, represents the most critical noise-mitigating factor.

Other noise mitigation measures that can be employed (e.g., noise walls, earthen berms, vegetative buffers, etc.) are discussed within the acoustics survey report, found in Appendix C.

E. Hazardous Waste/Hazardous Materials

1. Impacts

The consequences of construction of the proposed facility include the abatement of lead based paint and asbestos throughout the facility. Several buildings within the 232-acre project area are to be demolished or renovated to accommodate future FLETC training and administrative needs. Construction debris would be generated during demolition and renovation activities. Based on a review of historic environmental data generated for the former NCDC, it is anticipated that construction activities would not encounter debris landfills, trash sites, or impoundments within the facility.

A total of 27 underground storage tanks (USTs) have been removed from the facility. A 10,000-gallon No. 2 fuel oil tank located beneath Building 31(former Communication Lab) was cleaned, filled with a slurry material and closed in place. With the exception of two No. 6 crude oil tanks, two water storage tanks, one gasoline tank, and one waste oil tank, all other tanks contained No. 2 fuel oil.

The two No. 6 crude oil tanks were removed in 1992 and replaced by two 12,000-gallon No. 2 fuel oil tanks. These two tanks recently underwent removal and closure in full accordance with MDE requirements.

Hazardous waste would be generated from use of the firing ranges, building demolition, and abatement programs, as well as routine maintenance of facilities and vehicles. The facility would operate under very specific rules and requirements for "Generators of Hazardous Waste". Specifically, the USEPA requires that anyone who treats, stores disposes, transports or offers for transport a hazardous waste must be registered with EPA and obtain an EPA Identification Number. FLETC Cheltenham would be classified as a large quantity generator (LQG) due to the amount of hazardous waste the FLETC is estimated to generate in the first year (asbestos and lead based paint waste). The FLETC would be required to develop an inspection system, training program, complete annual reports to EPA, track all waste from the point of generation to final disposal, develop an emergency contingency plan and coordinate storage of waste with the Cheltenham local authorities (i.e., fire departments and other emergency personnel). Declared hazardous waste materials could not be stored at the facility for more than 90 days from the date of origin. All waste materials would be analyzed by a certified lab, containerized, and manifested to an approved disposal facility. All of these actions would be monitored by MDE and USEPA. A waste storage facility is proposed to be constructed with fencing, lighting, and proper secondary containment, as required by USEPA Code of Federal Regulations.

Officers to be trained at Cheltenham would not be restricted to a specific type of ammunition (i.e., lead versus non-lead). The FLETC has indicated that they will accept whatever type of ammunition is dispensed to the law enforcement agency personnel that would utilize the facility. This would likely involve the use of lead bullets. Lead bullets and dust at the FTF would be collected by the installed system described previously and taken by a certified recycler for smelting and reuse (among other available disposal options).

Hazardous waste management activities at the Cheltenham facility would be monitored by the EPA ID Number assigned to the facility. The MDE has the authority to inspect the facility and the hazardous waste operations at any given time without prior notice. The Cheltenham facility would not be authorized or permitted to treat or dispose of hazardous waste. The facility would be listed as a storage facility (90 day storage) only.

2. Mitigation

It is anticipated that the facility would generate lead debris and dust from the FTFs, refrigeration oil from HVAC systems, batteries, weapons cleaning solvents, lighting ballast, fluorescent tubes from light fixtures, and some used oils. Batteries, light ballasts, fluorescent tubes, brass and used oils would be recycled. Used oil and lead-acid batteries are regulated as federal universal waste and

would be managed as such. Similarly, since most fluorescent tubes contain mercury, they are also managed as a universal waste. Universal wastes must be handled by a treatment, storage, disposal, or recycling facility. There are several recycling facilities in Maryland and Pennsylvania that accept fluorescent tubes. One disposal option for the lead dust and debris would be to manifest it to an EPA-approved disposal facility where it would be treated and disposed. The FLETC will also investigate the possibility of recycling their lead waste material. If recycled, the material would be characterized as a non-hazardous solid waste.

As a generator of hazardous waste, the FLETC would be required to prepare and submit an annual Waste Minimization Plan that describes waste management practices that have been incorporated to minimize the volume of waste material generated annually at the facility.

4.2.2 WATER RESOURCES

A. Surface Water

1. Impacts

Surface water resources are found throughout the project area; most are located in the western and southwestern portions of the facility. A small perennial unnamed tributary to Piscataway Creek is located along the western property boundary line. Several drainage features (e.g., swales, culverts, etc.) are located throughout the property. Clearing and grubbing of site vegetation and earthmoving activities pose the potential for increased runoff and sediment loads into these site features.

Under this Proposed Action Alternative, construction of the DMURC would result in minor impacts to the unnamed stream located along the western property boundary line. Grading and filling operations could impact the stream in some locations. Additional impacts would result from the installation of culverts and abutments (if required). Placement of fill in streams can cause alterations in channel morphology and riffle/pool complexes.

Operation of the DMURC within the western half of the site may also impact site surface waters. Grading and filling would occur along the western and southwestern edges of the driving surface. Absent proper erosion and sediment pollution control measures, water quality within the unnamed tributary could be impacted by excessive sediment loading during surface runoff and interflow (water moving down-slope within the soil). Further, surface water resources may be impacted by pollutants within highway runoff generated during normal driver training activities over time. The constituents of this runoff may include particulates, metals, oil and grease, organics, nutrients, and other substances. The potential for impacts from runoff of this nature is determined by pollutant concentrations, which would vary as a function of the volume of traffic not only on the driving range itself, but also

across the entire facility. It can also depend on maintenance activities (frequency and type), land use adjacent to the stream, pavement type, etc.

2. Mitigation

Design specifications and construction activities should meet the erosion and sediment pollution control measures specified by MDE and Prince George's County regulations, including the requirements of the Chesapeake Bay Program for non-point source loading (i.e., net-zero loading). An Erosion and Sediment Control Plan would be prepared for review and concurrence by the MDE. Strict adherence to this plan and specifications would be required to minimize impacts to surface water resources from construction of the Cheltenham facility. Multiple stormwater management facilities, including on-site retention ponds, sediment traps, etc., would be installed.

Depending on the level of impact, permits that must be acquired for work in and around the stream system may include an MDE Letter of Exemption, MDE NPDES permit, MDE Water Quality Certification, and a MDE/ACOE Act 404 Joint Permit. The requirements and special conditions of these permits would need to be met in order to minimize construction-related impacts to surface waters. Some of these special measures are found below:

- Proper sequencing of construction activities
- The use of sediment control ponds and traps
- The use of diversion ditches and berms
- Temporary and permanent seeding
- The use of surface mattings
- The use of channel linings and rock slope protection
- The use of energy dissipators
- The use of silt barrier fencing

Further, other mitigation measures that can be undertaken to minimize impacts to surface waters at the Cheltenham site are included below:

- Minimize the amount of vegetative clearing to reduce runoff volume and temperature increases.
- Minimize the linear distance of unnamed stream impacted at each crossing.
- Minimize operation of heavy equipment in the stream channel.
- Construct temporary in-stream measures (coffer dams, stream crossings) with clean rock.
- Locate equipment fueling and service staging areas away from aquatic resources.

Avoidance of impacts to the unnamed stream can be achieved through design considerations and construction practices. Careful alignment selection can avoid or reduce impacts to stream geomorphology. Where possible, crossings would be placed perpendicular to the stream channel, to minimize the area of alignment above the stream channel. Retaining walls would be considered to minimize fill areas, reduce slope, and reduce stream encroachment in certain areas.

In the event impacts to the stream are unavoidable and of a certain significance that permit conditions require compensation for lost habitat function and values, habitat restoration, creation and improvements can be utilized. In these cases, every attempt would be made to duplicate existing conditions from the original stream as much as possible.

In the event habitat mitigation is required, plans and specifications would be developed to address substrate materials, channel morphology, enhancement of habitat diversity, and bank stabilization measures. Detailed analyses of existing conditions and subsequent habitat changes through design would result in the development of a plan that adequately addresses and compensates for impacts to stream habitat and aquatic biota.

B. Floodplains

1. Impacts

The areas proposed to be affected by the building modifications and new construction are located outside of any delineated 100-year and 500-year flood boundary limits, as shown on Figure 8. Therefore, implementation of this alternative would not impact flood prone areas.

2. Mitigation

Since flood prone areas would not be impacted, this alternative does not require mitigation measures.

C. Wetlands

1. Impacts

Under this Proposed Action Alternative, construction of the DMURC would result in minimal impacts to Wetland WKS-B. Grading and filling operations would permanently impact wetland functions and values in some locations. FLETC driver safety requirements dictate that a buffer zone be maintained around the driving surface of the DMURC. There can be no trees within the buffer zone, thereby eliminating the potential for accidental collisions while conducting training exercises. Creation of the buffer zone (i.e., tree clearing) may also impact portions of Wetland WKS-B. There would be no requirement to grub the root

balls as part of the clearing process, however. Additionally, construction of certain components of the DMURC may impact the downstream hydrology of Wetland HF-E. This impact is anticipated to be temporary because the design would accommodate management and conveyance of stormwater into the downstream wetland systems adjacent to Piscataway Creek. Refer to Figure 9 for the locations of these wetlands within the project area.

2. Mitigation

During preliminary and final design and construction of the preferred alternative, considerable attention will be placed on avoiding impacts to acreage, functions, and values of existing wetlands within the project area. The FLETC would make every effort to avoid impacts in areas where the design can accommodate flexibility in layout. Where unavoidable impacts exist, permitting, and if necessary, mitigation measures would be developed.

In order to minimize impacts to existing wetlands, strict adherence to the approved erosion and sediment control plan would be necessary. Water quality permit conditions would be strictly enforced. Where feasible, slopes would be made as steep as possible to minimize the amount of wetland area lost.

Wetland impacts of greater than 5,000 ft^2 would require the implementation of mitigation measures. Impacted wetlands would be mitigated in accordance with requirements provided by the ACOE, MDE, and USEPA. Resource agency coordination is necessary when negotiating and developing mitigation strategies to compensate for the loss of wetland acreage, functions, and values. These measures may include financial contribution to an established wetland bank, restoration of former wetland acres, or the creation of new wetlands.

Unavoidable minor impacts (i.e., less than 5,000 ft^2) to wetlands would require a permit from MDE. If wetland impacts are greater than 5,000 ft^2, however, implementation of this alternative would require an MDE/ACOE Act 404 Joint Permit. Wetland HF-B, located at the southeastern end of the project area, was found to include populations of small bedstraw (*Galium trifidum*), a species of undetermined state status. Wetland HF-B would therefore be protected as a wetland that supports significant plant or wildlife value.

Wetland mitigation is not required for projects that qualify for a Letter of Exemption. Mitigation is, however, required for projects requiring an MDE/ACOE Act 404 Joint Permit. Mitigation ratios are determined as part of the permitting process, but are typically 2:1 for palustrine forested wetland impacts, 1.5:1 for palustrine scrub/shrub wetland impacts, and 1:1 for palustrine emergent wetland impacts.

The FLETC has proposed to donate approximately 25 acres of land located at the southeastern end of the project area to Prince George's County for the continued use by the Prince George's County Fire/Rescue Department. Included within the 25 acres of land are approximately 11 acres of palustrine emergent and forested wetlands located adjacent to Piscataway Creek. These wetlands are associated with the 100-year flood boundary of Piscataway Creek. Through the property transfer, the terrestrial and aquatic habitats found within the 25 acres would be preserved. Future construction activities within the remaining FLETC property would include stormwater management and erosion control measures to protect downstream wetlands from potential detrimental impacts.

D. Groundwater Quality

1. Impacts

The quantity of groundwater proposed to be withdrawn from the facility's potable water supply would be comparable to the quantities utilized prior to the 1998 facility deactivation. The FLETC operation would require no new groundwater wells or increased pumping rates from the existing wells.

The FLETC is proposing to install and utilize a 5,000-gallon gasoline UST to fuel driver training vehicles for use on the DMURC.

2. Mitigation

No mitigation measures are required for the restart and operation of the facility's potable water supply system. New underground storage tanks would be double-walled construction, and equipped with leak detection, and self-monitoring equipment (e.g., overfill and leak detection alarms). The FLETC is proposing installation of No. 2 fuel oil aboveground storage tanks (AST) for new building heating units. The FLETC would conduct periodic inspections of tank conditions.

The risk of groundwater contamination by spills would be reduced by the use of stormwater management ponds. Runoff resulting from spills would be directed to inlets along the driving surface shoulder. Cross and parallel drainage would direct this runoff to stormwater management ponds within the vicinity of the DMURC.

4.2.3 BIOLOGICAL RESOURCES

A. Vegetation

1. Impacts

For Alternative 2, the DMURC is to be constructed primarily in undeveloped portions of the project area, resulting in impacts to forested land and maintained grass areas. Construction of the DMURC would impact large areas of forested land in the western portion of the project area. Dominant tree species in this area include red maple, sweetgum, pitch pine, sycamore and red oak. The FTF would be constructed in previously developed portions of the project area, and would therefore not impact vegetation other than ornamentals.

2. Mitigation

Management of vegetation surrounding the DMURC and FTF would accommodate construction of the facilities to improve aesthetics, enhance wildlife habitat, reduce wildfire potential, control insects, and eliminate the potential for accidental collisions during driver training exercises.

No mitigation of vegetation is required as part of the permitting process. The threatened/endangered species response letter from DNR, dated August 7, 2001, stated the forested area on the project site contains Forest Interior Dwelling Bird habitat. The conservation of this habitat is strongly encouraged by the DNR. The letter included several guidelines to help minimize the project's impacts on Forest Interior Dwelling Bird habitat, such as concentrating development to nonforested areas, limiting forest removal to the project "footprint", and minimizing the number and length of driveways and roads. However, these guidelines are recommendations only. Since the project is not within the Chesapeake Bay Critical Area, these guidelines are not mandatory. However, FLETC is sensitive to tree removal, and would try to limit impacts to forested land wherever feasible.

B. Wildlife

1. Impacts

The project area consists of a composite of forested land, open fields, and developed land, (buildings and parking areas). Edge, open field, upland forest and forested wetland habitat types are available for use by wildlife within and adjacent to the project area. Based upon the diversity of the vegetation, it can be expected that the project areas consists of wildlife habitat that is of low to moderate value.

Proposed construction of the DMURC and FTF and start-up/operation of the entire facility would result in the introduction of noise and other disturbances related to use of the facility. Some areas that function as wildlife habitat would be cleared, grubbed, paved over, and otherwise disturbed during construction activities. Construction and operation of the facility could result in the reduction of wildlife diversity, population sizes, reproduction success, and changes in behavior.

Upon completion of the project, some wildlife species, especially birds and small mammals may acclimate to newly created edges and open spaces, including grasses and shrubs that would be planted within the project area.

The Preferred Alternative would require the clearing and grubbing of vegetation and the conversion of existing land use cover/land cover types to developed land. The loss of wildlife habitat due to implementation of this alternative would impact wildlife species that utilize this habitat. However, these species would likely relocate to adjacent forested areas, such as the Prince George's County Wetlands Park located adjacent to the study area.

2. Mitigation

No mitigation is required for impacts to wildlife as part of the environmental permitting process. However, the FLETC is sensitive to wildlife preservation and would therefore make every attempt to limit impacts to wildlife and associated habitat during construction activities by allowing species to relocate to adjacent areas that contain similar and suitable habitat to support such species.

One problem area involves the utilization of the newly developed area by wildlife, primarily small mammals and White-tailed Deer. Construction of the DMURC may interrupt White-tailed Deer natural movements between different habitats, however, it is more likely that the presence of deer on the driving surface would be entirely inadvertent. Given that there would be an uninterrupted 8-foot-high chain-link fence around the perimeter of the facility, it is not likely that deer would populate the areas in large numbers. As such, losses to vehicle collisions are expected to be minimal, if not non-existent. Further, plant species preferred by deer would be avoided for seeding or planting within the vicinity of the DMURC.

C. Rare, Threatened, and Endangered Species

1. Impacts

According to DNR, implementation of this alternative would not directly impact the population of small bedstraw found in Wetland HF-B. It was recommended that the project design maintain hydrologic flow (i.e., stormwater discharge) to the wetlands at the southeastern end of the project area. DNR further stated that, given the location of small bedstraw populations within wetlands in the project

area, and their proximity to Piscataway Creek and Wetlands WKS-B and HF-E, Wetlands WKS-B or HF-E would not be protected as wetlands that support species of special concern.

2. Mitigation

No mitigation of rare, threatened or endangered species is required because the DNR determined that impacts to Wetlands WKS-B or HF-E would not indirectly impact the population of small bedstraw. If it is determined that impacts to these wetlands would indirectly impact the population of small bedstraw, the project would require an MDE/ACOE Section 404 Joint Permit, and wetland impacts would have to be mitigated.

4.2.4 CULTURAL RESOURCES

A. Archeological Resources

1. Impacts

Based on the findings detailed in the Phase I Architectural Survey and Archaeological Investigations report (R. Christopher Goodwin & Associates, March 1999), and the subsequent concurrence letter issued by the Maryland Department of Housing and Community Development; Maryland Historical Trust (Appendix B), there are no archaeological sites within the project area. Therefore, implementation of the project would not impact archaeological sites.

2. Mitigation

Under this Alternative, there would be no mitigation requirements.

B. Historic Properties

1. Impacts

The Phase I Architectural Survey and Archaeological Investigations report also found that the complex of buildings evaluated as part of the study do not possess significance for inclusion in the National Register of Historic Places (Appendix B). Therefore, there would be no impacts to listed historic properties within the project area.

2. Mitigation

There would be no mitigation requirements under this Alternative.

4.2.5 VISUAL QUALITY

A. Within Center

1. Impact

Buildings within the property limits at Cheltenham were surveyed in 1999 to assess their potential significance under the National Register Criteria for Evaluation. Of the 102 buildings on site, 44 were constructed between 1938 and 1945, and 58 were constructed after 1946. Older buildings were of the Georgian Colonial revival style typical of Navy and general military design during the period between World Wars One and Two. Construction subsequent to World War Two was contemporary. The conclusion of the Maryland Historical Trust, upon review of the architectural assessment, was that the site and its structures do not possess elements of significance for inclusion in the National Register of Historic Places.

New construction of the indoor FTF, guardhouses, and the visitor and security building would be of modern design elements and materials. The FTF, a new structure, would be a one-story building. Its location north of Building 13 would place it at the edge of the developed area. Some screening of this structure by trees along Commo Road would occur.

Architectural elements in existence at Cheltenham would be utilized for the new FTF. Notable brick, exposed concrete, decorated fascias, columns, rectangular windows, and pitched roofs would be used. A slate gray color would be recommended for the standing seam metal roof to blend with the existing slate roofs. The building's internal structure system would be precast concrete panels, including the roof. These panels support the range baffle, targetry, and trap systems, and also support the mechanical systems located in the mezzanine. These systems are located within the structure, not visible from the exterior.

2. Mitigation

Materials and design consideration for the new buildings would be in keeping with current codes and standards. As the existing site and its structures are a blend of older and more modern facilities, the new construction would not create an architectural dissonance.

B. External to Center

1. Impacts

Ground-level facilities at Cheltenham are screened on nearly the entire perimeter by mature deciduous and coniferous tree growth. The majority of this screening would be unaffected by the construction activities. The western edge of the site would be impacted by removal of some trees in order to construct the driving range, but all

efforts would be made to keep as much screening trees along the fenceline to the west as is possible. The two 100,000-gallon water tanks are more visible from certain viewsheds because of their height. Views into the site are possible from the east, especially along Frank Tippett Road, but the distance is slightly over one mile, so details are indistinct. New guardhouses and the visitor and security building would be somewhat visible as the gates are approached, but remained partially screened from nearby residences at the main gate by perimeter growth. No residential housing is present at the southern gate on Commo Road.

2. Mitigation

No mitigation measures beyond the attributes described above are required for this Alternative.

4.2.6 ACCESS AND TRAFFIC

A. Future Conditions

1. Impacts

Future conditions incorporate traffic expected to be generated by the site, adding it to the Background conditions. This effort illustrates the relative impact of the site related vehicle trips on the adjacent highway system.

Since the FLETC does not correspond to any similar land use as published in the latest edition of the Institute of Transportation Engineer's Trip Generation manual, site trip generation was derived based on discussions with personnel charged with operating the facility (Appendix B). The following summarizes the data obtained, reflecting the maximum number of persons that may be on-site during the day. Due to the nature of the training operations, it is likely that on most days, the number of personnel on-site would be less. For the purpose of this analysis, the maximum daily number has been assumed:

FLETC

• Full-Time Staff	58
• Firing Range	166
• Driving Range	25
• Tactical Training	25
• Classroom Training	35
SUBTOTAL	309

Capitol Police

• Full-Time Staff	19
• Classroom Training	25
SUBTOTAL	44
SITE TOTAL	**353**

In general and at project implementation, training would occur between the hours of 8 AM and 4 PM. Based on recently completed traffic counts, it was found that the peak hours generally occur from 7:15 to 8:15 in the morning and from 4:30 to 5:30 in the afternoon. As a result, an assumption has been made that 80% of site traffic arrives during the morning peak hour, while only 60% of site traffic leaves during the afternoon peak hour. The balance of the site traffic is assumed to arrive or leave during the adjacent hours. In addition we have assumed an additional 10% of site generated traffic travels in the non-peak direction, i.e., "out" during the morning peak and "in" during the afternoon peak. The following table illustrates the site trip generation for 353 total vehicles:

TABLE 14
PREDICTED TRIP GENERATION

AM Peak Hour (80% of 353)	PM Peak Hour (60% of 353)
IN – 282 trips	IN – 22 trips
OUT – 28 trips	OUT – 212 trips

Site trip distribution and traffic assignment assumes the following:

60% via MD 5 from the north to MD 223 to Dangerfield Road
20% via MD 5 from the north to Surratts Road to Dangerfield Road
5% via MD 5 from the south to Surratts Road to Dangerfield Road
5% via MD 223 from the east to Dangerfield Road
5% via US 301 from the south to Frank Tippett Road to Skid pad
5% via US 301 from the north to Frank Tippett Road to Skid pad

Total traffic volumes are presented in Figures 15 and 16 for the AM and PM peak hours, respectively. Capacity and level of service analyses were conducted at each location using the Critical Lane volume analysis technique. The capacity analysis worksheets are provided in Appendix G of the Traffic Report. The seven intersections and resultant levels of service are provided in Table 15, below.

TABLE 15
TOTAL CONDITIONS

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	v/c	LOS	V/c
MD 5 at Surratts Road	F	1.14	F	1.07
Surratts Road at Dangerfield Road	A	0.43	A	0.35
Dangerfield Road at Access Road	A	0.34	A	0.32
Dangerfield Road at MD 223	A	0.57	E	0.92
Frank Tippett Road at Skid pad	A	0.26	A	0.36
Frank Tippett Road at Surratts Road	A	0.50	A	0.52
Frank Tippett Road at US 301	C	0.72	E	0.98

LOS – Level of Service v/c – Volume-to-Capacity Ratio

A comparison between Background and Total Conditions, i.e., Tables 6 and14, illustrates the relative impact of site traffic at each of the critical intersections. While the volume-to-capacity ratios increase only slightly at each location, the increase is enough at two intersections to affect the level of service. At the intersection of MD 223 and Dangerfield Road, while the v/c ratio increases by only .01 during the afternoon peak, it is just enough to change the level of service from D to E. Likewise, at the intersection of US 301 and Frank Tippett Road, the v/c ratio increases by .01 during the morning peak, changing the level of service from B to C. The level of service during the PM peak is E under both Background and Total conditions, with no change in the v/c ratio.

2. Mitigation

With the exception of these two locations, plus MD 5 at Surratts Road, all other intersections operate at adequate levels of service, well below capacity. And while the level of service at MD 5 at Surratts Road is calculated as F under both Background and Total conditions, the impact of the site is minimal. When the State Highway Administration moves the MD 5 project into the construction program and upgrades this location to a grade-separated interchange, including a realignment of Surratts Road east of the intersection, it is possible that some of the site traffic would shift from MD 223 to Surratts Road. This would provide some relief to the MD 223 at Dangerfield Road intersection. Although not specified in the analysis, all truck traffic and deliveries would be directed to use the Commo Road gate at the southeastern end of the project area. Additional mitigation may be accomplished through employee carpooling, the establishment of van service to nearby Metrorail stations, and minor adjustments to the intersection at US 301 to better define the right turn movement from Frank Tippett Road.

It should also be noted, that until the Navy abandoned the site, there were as many as 353 personnel (116 military, 237 civilian) assigned to the facility.

4.2.7 UTILITY INFRASTRUCTURE

A. Water

1. Impacts

Two, 100,000-gallon water storage towers, deep well pumps rated at 200 gpm at each tower, and gaseous chlorination stations constitute the former NCDC potable water system. Water distribution piping varies in size from 1.5 inches to 10 inches. Numerous hydrants are also located throughout the site on this distribution system.

Because of the similarity between the number of personnel onboard Cheltenham in the past and the number proposed for FLETC, it is anticipated that the existing potable water system would be adequate to meet the needs of the anticipated activities and personnel. Interconnection to the Washington Suburban Sanitary Commission potable water distribution system is an alternative means of securing potable water.

2. Mitigation

Construction activities are expected to be limited to excavation and installation of underground piping to provide interconnection to the WSSC system. Therefore, mitigation activities would be minimal. Erosion and sedimentation control measures would be implemented to protect water resources during construction.

B. Sanitary Sewer

1. Impacts

All sanitary wastewater generated onsite due to the FLETC training operations would be directed into the WSSC's system. This commission provides both potable water and sanitary wastewater treatment services to Montgomery and Prince George's Counties, MD, with certain cooperative agreements with the District of Columbia. Collected wastewater exits the FLETC site through an 8-inch main at the southeastern end of Commo Road. A metering station exists on land currently utilized by the Prince George's County Fire/Rescue Department (southeastern portion of the project area) for the combined flows from both sites, but FLETC would construct its own flow measuring flume near Building 31.

Stormwater would not be combined with the sanitary flow at FLETC Cheltenham.

2. Mitigation

Reuse of the existing system without construction of improvements or expansion would avoid any mitigation measures.

C. Stormwater Management

1. Impacts

Stormwater runoff from roofs and impervious surfaces would continue to be collected from the majority of the site north of Stone Court and directed towards the western edge of the property near the former pool site where it discharges into the existing stream and wetlands. Stormwater collected at the Stone Court housing area would continue to be conveyed south beneath Commo Road and discharges to the surface. Stormwater from Building 31 would continue to discharge into a series of riprap-lined french drains. Water from this detention enters swales south of the Building 31 parking lot, and eventually flows past the Prince George's County Fire Training Academy, entering the wetlands area to the east.

Stormwater management structures for the new driver training range would consist of a series of stepped swales or shallow ponds designed to retain and release stormwater at acceptable controlled rates per the Maryland water quality requirements. Stormwater would exit the site at more than one location, including the western property corner where it currently flows into the tributary to Piscataway Creek.

2. Mitigation

Detention ponds would be designed and operated per State of Maryland requirements in order to prevent stormwater runoff from creating unacceptable erosion and sedimentation impacts. The facility would operate in accordance with National Pollutant Discharge Elimination System (NPDES) stormwater permit conditions.

D. Electric Power and Communications

1. Impacts

Electric power would continue to be provided to the site by the Potomac Electric and Power Company (PEPCO) via 13.2 kv overhead distribution from PEPCO's substation located on Surratts Road southwest of FLETC Cheltenham. No improvements to this distribution would be required.

Small emergency generators would be installed at both guardhouses, and the visitor and security building. No other emergency power generating capability would be necessary or provided.

Telephone service would continue to be provided via fiberoptic cable from Dangerfield Road onto the site.

2. Mitigation

No impacts would result from reutilization of the existing electric power and communications systems; therefore, no mitigation measures would be necessary.

4.2.8 COMMUNITY CHARACTERISTICS

A. Land Use and Planning

1. Impacts

The proposed site is an existing federal government facility with no off-site improvements anticipated. It is anticipated that community planning by the MNCPPC for all areas within Subregion V that surround the FLETC would continue, as would private land development.

Continued use of the former NCDC facility by a federal agency is consistent with the NCPC's policies for federal facilities planning in the Capitol Region. The FLETC intends to utilize existing federal lands and facilities in lieu of acquiring new or additional land.

For these reasons, the Preferred Alternative is not expected to adversely impact land uses or planning activities in the area around the facility.

B. Population/Housing/Economy/Employment

1. Impacts

Although statistics show this area is currently healthy in terms of population growth, development, jobs, and economy, implementation of the Proposed Action Alternative would likely result in further beneficial impacts within the community. Law enforcement students, instructors, and visitors would contribute to the local economy through overnight accommodations, meals in local restaurants, gasoline purchases, and shopping in nearby stores. The facility itself would make purchases in the local economy as well (e.g., office supplies, foodstuffs, electronic equipment, etc.). Services (e.g., trash pickup, mechanical/electrical contracting work, construction services, etc.) would also be contracted from the local area on an occasional basis. Additionally, utilization of the former NCDC facility under this Alternative would not result in the relocation of businesses or residents out of the area. Therefore, tax revenue losses would not occur.

The Proposed Action Alternative would result in approximately 58 additional families (approximately 240 people) relocating into the region surrounding the FLETC. The training facility would not be a residential facility; that is, there would be no on-site housing. The establishment of new residents in the area would contribute positively to the County's tax base and school district.

C. Community Institutions/Services

1. Impacts

The Proposed Action would result in an additional 58 families (approximately 240 people) relocated to the region surrounding the FLETC. An increase in population of this scale is expected to have minimal impacts on existing community services.

A critical aspect of implementation of the Proposed Action Alternative is the proposed transfer of ownership of approximately 25 acres of land currently occupied by the Prince George's County Fire Training Academy. The Academy is located in the southeastern portion of the FLETC property. As the current owner of the property, FLETC leases the property to the County for use by the Prince George's County Fire/Rescue Department. The Fire Training Academy, which has been using the property for approximately 20 years, is responsible for sponsoring, coordinating, and conducting emergency services related training for all career and volunteer members of the Department. Additionally, the Academy conducts training for several Federal, State and local agencies and organizations not directly involved with the fire or EMS service.

Legal transfer of the property would remove the County from the obligation of the existing lease agreement and allow them to develop and utilize the land to its fullest potential. Ultimately, transfer of ownership would benefit the residents of the County by enabling the Prince George's County Fire/Rescue Department to fully meet its objectives and responsibilities, which in turn would achieve its mission of promoting safety and delivering the highest possible level of protection for lives and property.

D. Fire/Emergency Response/Educational Services

1. Impacts

Because the potential change in population is relatively small, the potential increase in demand for these services is also expected to be small. Existing police and fire service is sufficient to meet the minor anticipated need for emergency services that may result from the nature of the training. The FLETC would maintain a small emergency medical facility on site. Accordingly, no adverse impact to police, fire, medical, and educational services is anticipated as a result of construction of the FLETC facility.

On any given day of the work week, the facility may accommodate as many as 353 law enforcement staff and students. Proposed training and requalification activities would include training in weapons and rapid response tactics, and high speed emergency and non-emergency vehicle operations. While personal safety is paramount in any training and requalification activities, accidents cannot be unexpected. It is not expected, however, that the number of accidents would have an adverse impact on existing fire or emergency response capabilities.

E. Environmental Justice

1. Impacts

The proposed project would involve adapting an existing federal government facility for reuse with no anticipated off-site improvements. The FTF facility would be completely enclosed and vehicle training would be performed during daylight hours only. There are no disruptions to the surrounding community anticipated. An evaluation of the project and its potential impacts (and mitigation measures) on the surrounding community indicates that it meets the MACEJ definition of equal protection from environmental and public health hazards for all people regardless of race, income, culture, and social class. The evaluation further ensures that the communities surrounding the facility are not being subjected to a disproportionate share of negative environmental consequences resulting from siting the federal facility at the former NCDC facility.

2. Mitigation

As the project would involve no environmental justice issues, no mitigation measures are warranted.

4.3 ALTERNATIVE 3 – PROPOSED ACTION WITH REDUCED DMURC FOOTPRINT

Alternative 3 includes the design and construction of the DMURC within the southwestern one-half of the project area, similar to Alternative 2. However, the footprint of the driving surface and associated facilities has been abbreviated to result in the elimination of all impacts to project area surface waters and wetlands. According to FLETC driver training instructors, training and requalification requirements and tactics dictate that a longer driving surface be utilized than is proposed under this alternative.

Attributes within the project area were reviewed under this alternative. In many instances, impacts, or lack of impacts, are relatively similar to those identified for Alternative 2 (Proposed Action). As such, many of the sections that follow include abbreviated discussions pertaining to those impacts that differ from Alternative 2.

4.3.1 PHYSICAL RESOURCES

A. Climate

There would be no effect on climatic conditions due to this Alternative.

B. Soils, Geology, and Topography

Impacts on these resources would be similar to those discussed for Alternative 2. Somewhat less clearing and grubbing would be required. Rigorous enforcement of erosion and sediment controls would be required. Topographic impacts are expected to be similar to Alternative 2, relative to the extent of the footprint of the DMURC.

C. Air Quality

Air pollutant impacts and mitigation discussions for this alternative would be the same as presented for Alternative 2.

D. Noise

Noise impacts and mitigation measures would be the same for this alternative as those presented for Alternative 2.

E. Hazardous Materials/Hazardous Waste

Waste impacts and mitigation measures for Alternative 3 would be the same as discussed for Alternative 2.

4.3.2 WATER RESOURCES

A. Surface Waters

Surface water (stream) impacts would be reduced or eliminated in comparison with Alternative 2. Design of the DMURC would result in the elimination of impacts to project area streams. Slopes would be designed to be outside the 25-foot buffer around the non-tidal streams and wetlands. There would be no stream and wetland crossings as part of this alternative.

B. Floodplains

The Alternative 3 project area is located outside of any delineated 100-year flood prone limits, as shown on Figure 8. No impacts to flood prone areas would occur.

C. Wetlands

Alternative 3 would not impact wetlands, nor the 25-foot wetland buffer surrounding WKS-B or HF-E. The arrangement of the DMURC would be as shown in Figure 4, avoiding impacts to those or any other wetlands. Therefore, no water quality or wetland permits or mitigation would be required.

D. Groundwater Quality

Under this alternative, impacts to groundwater are expected to be the same as those identified in Alternative 2. As such, no mitigation measures would be warranted.

4.3.3 BIOLOGICAL RESOURCES

A. Vegetation

Vegetation impacts and mitigation measures would be the same as discussed for Alternative 2. Net impacted area would be somewhat reduced in size from the area affected for Alternative 2, but overall impacts and mitigation would be similar. Vegetation surrounding the DMURC and the FTF would be managed to improve aesthetics, enhance wildlife habitat, reduce wildfire potential, control insects, and improve driver safety. Design would accommodate avoidance of all unnecessary impacts to vegetation within the project area.

B. Wildlife

Wildlife impacts and mitigation measures would be the same as discussed for Alternative 2. Net impacted area would be somewhat reduced in size from the area affected for Alternative 2, but the overall impacts and mitigation would be similar.

C. Rare, Threatened, and Endangered Species

Alternative 3 would not impact wetlands. Therefore, the population of small bedstraw in Wetland HF-B would not be indirectly impacted due to impacts to Wetlands WKS-B or HF-E. No mitigation would be required since this alternative does not impact rare, threatened or endangered species.

4.3.4 CULTURAL RESOURCES

A. Archeological Resources

Impacts on archaeological resources are not anticipated, based on the findings noted in the Alternative 2 discussion.

B. Historic Properties

No impacts on historic properties are anticipated based on the findings noted in the Alternative 2 discussion.

4.3.5 VISUAL QUALITY

A. Within Center

Visual aspects of this alternative are the same as discussed for Alternative 2. No mitigation measures are required for visual impacts.

B. External to Center

External views into the site are as described above for Alternative 2. No mitigation measures are anticipated for this alternative.

4.3.6 ACCESS AND TRAFFIC

Traffic impacts and mitigation of impacts would be identical to those discussed for Alternative 2.

4.3.7 UTILITY INFRASTRUCTURE

A. Water

Impacts for this alternative would be identical to those discussed for Alternative 2. No construction activities would occur for the existing water system at Cheltenham, and therefore, no mitigation activities are planned.

B. Sanitary Sewer

Impacts for this alternative would be the same as the impacts discussed above for Alternative 2. Reuse of the existing system without construction of improvements or expansion would avoid any mitigation measures.

C. Stormwater Management

Stormwater management impacts and controls would be identical to those discussed for Alternative 2.

D. Electric Power and Communications

Impacts for this alternative are the same as discussed above for Alternative 2.

4.3.8 COMMUNITY CHARACTERISTICS

Discussions of the various community characteristics for Alternative 3 are identical to those presented above for Alternative 2.

4.4 ALTERNATIVE 4 – PROPOSED ACTION WITH RELOCATED DMURC FOOTPRINT

Implementation of this alternative would require the relocation of the DMURC footprint to an area north of Commo Road. Under this alternative, however, the DMURC and FTF would not be able to coexist. Under this alternative, the FTF would remain as it is currently depicted on Figure 3. Design, construction and utilization of the DMURC in this area would severely impact future expansion needs of the FTF and associated facilities. Further, siting the DMURC north of Commo Road appears to place it closer to heavily populated residential areas located immediately north of the project area.

Attributes within the project area were reviewed under this alternative. In many instances, impacts, or lack of impacts, are relatively similar to those identified for Alternative 2 (Proposed Action). As such, many of the sections that follow include abbreviated discussions pertaining to those impacts that differ from Alternative 2.

4.4.1 PHYSICAL RESOURCES

A. Climate

There would be no effect on climatic conditions due to this Alternative.

B. Soils, Geology, and Topography

The extent of impacts on these resources would be similar as those discussed for Alternative 2. Erosion and sediment controls would be required. Implementation of Alternative 4 would involve less variation in existing topographic relief than the area located south and southwest of Commo Road; consequently, less fill material would be required.

C. Air Quality

Air pollutant impacts and mitigation discussions for this alternative would be the same as presented for Alternative 2.

D. Noise

Noise impacts and mitigation measures would be the same for this alternative as those presented for Alternative 2.

E. Hazardous Materials/Hazardous Waste

Waste impacts and mitigation measures for Alternative 4 would be the same as discussed for Alternative 2.

4.4.2 WATER RESOURCES

A. Surface Waters

Depending on the final location of the DMURC, the project may cross drainage swales. With evidence of obvious features (e.g., piping), the MDE would not regulate impacts to the swales.

B. Floodplains

The Alternative 4 project area is located outside of any delineated 100-year flood prone limits, as shown on Figure 8. No impacts to flood prone areas would occur.

C. Wetlands

Depending on the location of the DMURC and FTF, Wetland WKS-A, RB-A and WKS-C may be impacted by this alternative. These wetlands are not hydrologically connected to Wetland HF-B, so they are not considered wetlands containing significant plant or wildlife value. If cumulative impacts are less than 5,000 square feet the project would qualify for a Letter of Exemption. If cumulative impacts are greater than 5,000 square feet, the project would require an MDE/ACOE Section 404 Joint Permit Application. As for Alternative 2, mitigation would be required if a Joint Permit is obtained. The design would accommodate minimization or avoidance of wetland impacts to the greatest extent possible.

D. Groundwater Quality

4.4.3 BIOLOGICAL RESOURCES

A. Vegetation

For Alternative 4, the DMURC would be primarily constructed in undeveloped portions of the project area, resulting in impacts to forested land and maintained grass areas. The DMURC would impact large areas of forested land in the eastern portion of the project area. Dominant tree species in this area consist of red maple, sweetgum, pitch pine, and yellow poplar. The FTF would be constructed in previously developed portions of the project area, and would therefore not impact vegetation other than ornamentals. No mitigation of vegetation would be required as part of the permitting process. However, FLETC is sensitive to tree removal, and would limit adverse impacts to forested land where feasible. Vegetation surrounding the DMURC and the FTF would be managed to improve aesthetics, enhance wildlife habitat, reduce wildfire potential, and control insects.

B. Wildlife

The loss of forested and grassland habitat from implementation of this alternative would impact wildlife species that utilize this habitat. However, these species would likely relocate to adjacent forested areas, such as the Prince George's County Wetlands Park located adjacent to the study area.

C. Rare, Threatened, and Endangered Species

The population of small bedstraw located in Wetland HF-B would not be directly or indirectly impacted by this alternative. Therefore, no mitigation of rare, threatened or endangered species would be required.

4.4.4 CULTURAL RESOURCES

A. Archeological Resources

Impacts on archaeological resources would not be anticipated, based on the findings noted in the Alternative 2 discussion.

B. Historic Properties

No impacts on historic properties would be anticipated based on the findings noted in the Alternative 2 discussion.

4.4.5 VISUAL QUALITY

A. Within Center

1. Impact

Visual aspects of this alternative would be the same as discussed for Alternative 2, with the DMURC located to the eastern side of the site.

2. Mitigation

No mitigation measures would be required for visual impacts.

B. External to Center

1. Impact

External views into the site would be as described above for Alternative 2.

2. Mitigation

No mitigation measures would be necessary for this alternative.

4.4.6 ACCESS AND TRAFFIC

Traffic impacts and mitigation of impacts would be identical to those discussed in Alternative 2.

4.4.7 UTILITY INFRASTRUCTURE

A. Water

Impacts for this alternative would be identical to those discussed for Alternative 2. No construction activities would occur for the existing water system at Cheltenham, and therefore, no mitigation activities are planned.

B. Sanitary Sewer

Impacts for this alternative would be the same as the impacts discussed above for Alternative 2. Reuse of the existing system without construction of improvements or expansion would avoid any mitigation measures.

C. Stormwater Management

Stormwater management impacts and required controls would be identical to those discussed previously. However, the stormwater control structures would release stormwater on the east/northeast side of the facility; the water would ultimately be discharged to the Prince George's County Wetland Park to the east.

D. Electric Power and Communications

Impacts for this alternative would be the same as discussed above for Alternative 2.

4.4.8 COMMUNITY CHARACTERISTICS

Discussions of the various community characteristics for Alternative 4 are identical to those presented above for Alternative 2.

5. UNAVOIDABLE ADVERSE IMPACTS

Environmental impacts represent changes from the current situation and its environment that may be considered undesirable, but necessary to achieve the overall goals of the project.

Under certain alternatives presented in this EA, alteration of the former NCDC site would result in reduction of wetland acreage during construction of the DMURC. Removal and alteration of forested, edge, field, and aquatic habitat would also accompany construction activities. The FLETC would be required to conduct all construction activities in strict accordance with the provisions of an approved E&S plan and an NPDES permit for construction activities.

Traffic impacts resulting from start-up and reuse of the facility would be unavoidable since the area has not experienced traffic associated with the facility since the closure of the communications detachment. There are expected to be traffic impacts at two of the seven intersections that were surveyed as part of this EA. The increase in traffic at these two intersections is anticipated to be enough to affect the level of service at those intersections. Survey data indicate that overall impacts to local roads and intersections are not expected to be considerably different from those that were experienced during the years prior to 1998.

Operations at Cheltenham would again impact the sanitary conveyance and treatment systems in the region, but these systems would not experience impacts exceeding the pre-1998 service demand. Similarly, groundwater withdrawal for potable use would be nearly identical to the pre-1998 quantities because of the similarity in population on site.

Increases in impervious surfaces would result in increased quantities of stormwater to be managed and released in an approved manner. The facility's stormwater management system would comply with MDE and Prince George's County soil conservation requirements.

Currently, the facility is not generating hazardous waste. Start-up and operation of the facility under Alternatives 2, 3, or 4 would result in the generation of hazardous waste. Based on anticipated quantities of asbestos and lead based paint debris generated during initial building demolition and renovation, the FLETC would be required to be registered as a large quantity generator of hazardous waste (LQG). Management of hazardous wastes would be regulated by the USEPA under an EPA identification number. Other waste materials that are expected to be generated include (but are not limited to) spent lead debris from the FTF, used oil and oil filters, fluorescent tubes, lighting ballasts, and various solvents. The FLETC would not be permitted to treat hazardous waste on site or store waste beyond the 90-day storage period. The FLETC has indicated that they would investigate the possibility of recycling spent lead debris from the FTF in order to dispose of it as a non-hazardous waste.

An Acoustic Survey and Impact Analysis study was completed as part of this EA. Although various levels of audible noise would be generated during firearms and driver training exercises, it is expected that those levels would be minimal. The FTF would be a completely enclosed facility; therefore, average sound levels from the FTF would not be audible within 500 feet of the range building. Similarly, average sound levels produced by driver training exercises on the ranges at locations as shown in the various alternatives would be less than the 65 dBA daytime

sound level limit at the property line required by the Prince George's County Noise Ordinance and the State of Maryland Title 26 Department of the Environment, Subtitle 02 Occupational, Industrial and Residential Hazards, Chapter 03 Control of Noise Pollution.

6. RELATIONSHIP OF SHORT TERM USES AND LONG TERM PRODUCTIVITY

Need for a training and requalification site for continuation and expansion of the FLETC's services to the law enforcement community, primarily to those agencies in the metropolitan Washington, DC area, has been recognized as a critical long-term goal. The short-term impacts of reuse or government-owned, but inactive, sites for this purpose (such as is proposed herein) is a beneficial use of an existing asset and would therefore be consistent with meeting the FLETC's long-term goals. Training and requalification services offered by the FLETC represent a continuation of the long- term federal government productive usage of the site and its environment. Renovation and new construction addressed in this document have been considered and proposed in accordance with these plans. New construction impacts to the environment would be minimized where possible, and mitigated as needed. The similarity in population utilizing the infrastructure and resources at Cheltenham to the previous usage by the U.S. Navy would help minimize changes in short-term usage of resources. Measures such as erosion and sedimentation controls, proper stormwater management, and reuse of buildings represent the FLETC's commitment to integrate the existing environment with minimized impacts and long-term productive use of the site.

7. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Irreversible commitments are those that are not reversible in the short term, and only potentially reversible or recoverable in the extreme long term. An example of this would be mining of coal or minerals, where once the material is removed from the earth, it cannot be replaced. Logging of an old-growth forest can also be considered and irreversible commitment of resources as it may take hundreds of years to reestablish the forest to its original condition.

The construction of Alternatives 2, 3, or 4 involves the irreversible and irretrievable commitment of various natural, human, and fiscal resources. Although the construction of the DMURC and FTF can be considered an irreversible commitment of land, it is possible to re-convert the property to another use, should a greater need for the land be proven or the facility proven to be no longer necessary. It is not anticipated, however, that either of these two situations would occur.

Resources committed to this project that are not considered recoverable include fossil fuels, labor, financial resources, and land. Electric power, gasoline, and diesel fuels would be consumed by worker vehicles, machinery, and tools in the construction of the facility. Fuels and power, and labor resources would be required to operate the facility. Commitment of funds for design and implementation of the project reduces the availability of this resource for other projects. The site and its attributes would be unavailable for other uses for the duration of its usage for law enforcement officer training, although in the future it could be utilized for other purposes, as stated above. Adverse impacts to wetlands would result in a loss of resources for the duration of the facility operation, classifying it as an irretrievable commitment. The commitment of these resources, however, would be mitigated through design and construction of wetlands and surface waters to compensate for adverse impacts and lost resource values and functions.

The commitment of any resources is established on the premise that the local and regional residents and communities would benefit from the improvements to the former NCDC facility. Expected benefits include properly trained law enforcement officers skilled in the various tactical requirements needed to protect local citizens and elected officials in the Washington DC area.

8. CUMULATIVE EFFECTS

Cumulative effects include the total effect of an action, including direct and indirect effects, on the resources within the project area and the human environment surrounding the project area regardless of who has taken the action (e.g., federal, nonfederal, private). The purpose of reviewing cumulative effects is to address or evaluate the additive impacts of primary, secondary, and tertiary impacts within the project area. In order to avoid evaluating cumulative impacts on too grand a scale, this EA focused on only those effects that would be truly meaningful.

The surrounding area around the Proposed Action is predominantly residential. Construction activities that potentially impact the environment in a cumulative manner include development of new housing tracts and alteration of roads. Impacts to air quality, watercourses and wetlands, visual quality, and traffic within and around the project area may have resulted from past activities, and the proposed project at Cheltenham would further impact these resources or attributes. Fortunately, the impacts are not associated with the construction and operation of manufacturing facilities wherein pollutant emissions, wastewater flows, sanitary wastewater quantities, solid and hazardous wastes, and traffic impacts due to deliveries would be potentially significant and ongoing. Anticipated impacts from operation of the FLETC facility at the former NCDC site generally represent a recurrence of impacts which were ongoing prior to 1998 when the U.S. Navy operated the facility.

Primary and secondary impacts associated with implementation of the project would include loss of forest and open field habitat, minor wetland acreage impacts, and any other impacts directly and indirectly associated with development of the FLETC facility. From a natural resources perspective, forested lands, open fields, and streams and wetlands have the greatest loss potential under Alternatives 2, 3, or 4. Impacts are typically calculated in acres as a finite number rounded to the nearest 0.1 acre. Design of the facility is not yet at a sufficient level to calculate specific impact acreage. Evaluation of impacts associated with the various alternatives is an integral part of this EA document.

It is important to note that implementation of the Preferred Alternative would not, in its current form, impact threatened or endangered species within the project area. Populations of small bedstraw, a species of undetermined state status, were found outside of any proposed development areas under this project description.

Historically, the Federal government has leased approximately 25 acres, located at the southeastern-most portion of the 232-acre project area, to Prince George's County for training of their Fire/Rescue Department personnel. As the new owner of the property, the FLETC has indicated a desire to donate this land directly to the County for continued use as the Prince George's County Fire Training Academy. Legal transfer of ownership through donation would benefit the County by the elimination of the lease agreement and payment. The Fire/Rescue Department would benefit by maintaining a staff of properly trained and qualified individuals through the uninterrupted use of the property for training purposes.

The FLETC has regularly participated in community involvement programs in Glynco, GA. At Glynco, the FLETC publishes a newspaper, the Glynco Observer, which is available in the community to inform the citizens as to activities at the facility. The approximate 1,500 personnel on site live in the surrounding community. Many work with the local school system as volunteers. The FLETC provides annual bus driving training for the school district's drivers before each school year starts. The FLETC also sponsors a mentoring program with the elementary schools. Each participating employee is given one hour per week to go into the school and work with a child. Approximately $100,000 each year is donated to the local United Way campaign by employees. Explorer Scouts meet on the FLETC facility, and Boy Scouts camp at the site. Employees regularly donate their time and talents to the local Habitat for Humanity effort.

FLETC Cheltenham would employ fewer personnel than the Glynco facility; however, it is the FLETC's intention to maintain a high level of community involvement in the Cheltenham and surrounding areas.

Employment opportunities and economic impacts would result from the construction and operation of the FLETC facility. It is expected that such changes would benefit the community.

The various federal law enforcement agencies that would be expected to utilize the facility operate on limited fiscal budgets. The ability to maintain their perishable firearms and driver training skills within the metropolitan Washington, DC area would positively impact the agencies' training budgets. Further, travel times would be minimized as agency personnel would not be required to travel or relocate to Glynco, GA, nor would they be relegated to finding and utilizing other training facilities throughout the Washington area. It is expected that as utilization of the Cheltenham facility increases, outside facilities that have, in the past, relied on agency involvement in their annual schedules and budgets would be negatively impacted. It is expected, however, that any downturn would be temporary as other agencies not associated with the FLETC facility would take advantage of the open schedules at these ranges, particularly in consideration of recent world events.

As the facility goes through start-up and long-term operation, the safety and well being of the residents of Prince George's County and the surrounding metropolitan Washington, DC area would be positively impacted through increased protection from well-trained officers that fulfill their responsibilities in a safe manner and at the highest level of proficiency.

Air quality impacts from the FLETC facility would be minimal, and not impede the area's progress towards attaining compliance with the federal ambient air quality standards. All stormwater runoff would be controlled in compliance with state and federal standards to ensure that water quality in the streams and wetland areas is not jeopardized. As discussed herein, some degradation of traffic flow would occur as a result of both the anticipated general growth of traffic volume and the impact of the reuse of the Cheltenham facility.

Potential future regional impacts outside of the FLETC site due to community institutional and transportation network planned changes are further noted in Chapter 3.

9. CONCLUSIONS

9.1 DISCUSSION

(TO BE COMPLETED AT END OF PUBLIC COMMENT PERIOD)